KNIFE RIVER INDIAN VILLAGES NATIONAL HISTORIC SITE STANTON, ND

KNIFE RIVER ELBEE BEND BANK STABILIZATION

KNRI 257081

PROJECT SPECIFICATIONS

NATIONAL PARK SERVICE (NPS)
DENVER SERVICE CENTER (DSC)

April 8, 2025

468 184187

KNIFE RIVER ELBEE BEND BANK STABILIZATION
KNRI 257081

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B. Geotechnical Recommendations Report for Knife River - Elbee Bend Bank Stabilization Project, Knife River Indian Villages National Historic Site, Stanton, ND, October 22, 2024 prepared by Stantec Consulting Services Inc.

C. Permit Conditions affecting the construction process for Knife River - Elbee Bend Bank Stabilization Project, Knife River Indian Villages National Historic Site, Stanton, ND.

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DIVISION 01: GENERAL REQUIREMENTS

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SECTION 01 11 00 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes the following:

1. Work Covered by Contract Documents
2. Work Under Other Contracts
3. Contractor Use of Site
4. Public Use of Site
5. Conduct of Operations
6. Work Restrictions
7. Special Construction Requirements
8. Soils Investigation Report
9. Additional Reports

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Location: Knife River Indian Villages National Historic Site, Elbee Bend, Stanton, ND. The project work occurs one and a half miles north of Stanton, ND on County Road 37 in the Knife River Elbee Bend. The location also be described as one mile north of the Visitor Center, east of County Road 37, north of the Gravel Parking Lot (North of Awatixa Village – Sakakawea Site) and south of the NPS Equipment Boneyard.

B. The Work consists of:

1. Site preparation (clearing and grubbing, topsoil salvage), erosion control, temporary river crossing, excavation, installation of rock, grading, material blending, material import, stockpiling of excess material, compaction, safety, quality control, seeding and restoration.

C. Project will be constructed under a single prime contract.

1.3 WORK UNDER OTHER CONTRACTS

A. General: Cooperate with separate Construction Contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract. Coordinate Work of this Contract with work performed under separate contracts.

B. Preceding Work: Tree removals. Selected trees were cut by NPS Staff and stumps will not need to be removed by Contractor.

1.4 GOVERNMENT-FURNISHED MATERIALS

A. In case of Government -furnished materials:
   1. Government will arrange and pay for delivery of Government-furnished items according to Contractor's Construction Schedule.
   2. Contractor is responsible for initial inspection, receiving, unloading, and handling Government-furnished items at Project site.
   3. Government will inspect delivered items for damage after delivery. Contractor shall be present for and assist in Government's inspection.
   4. Government will arrange for replacement if Government-furnished items are damaged, defective, or missing.
   5. Contractor is responsible for protecting Government-furnished items from damage during storage and handling, including damage from exposure to the elements.
   6. If Government-furnished items are damaged as a result of Contractor's operations, Contractor shall repair or replace them.
   7. Contractor shall install and otherwise incorporate Government-furnished items into Work.

B. Government-Furnished Materials: (NOT USED)

1.5 CONTRACTOR USE OF SITE

A. General: Contractor shall have full use of the site for construction operations during the construction period. Contractor's use of the site is limited only by the Government's right to perform work or to retain other contractors on portions of Project.

B. Storage of Materials: Confine storage of materials to the existing Gravel Parking Lot (North of Awatixa Village – Sakakawea Site), and additional staging locations shown on the Drawings or as directed by the Contracting Officer. Protection of existing surface is the responsibility of the Contractor. Any damage to the existing gravel parking lot or staging areas shall be repaired and the site restored to pre-project conditions at no cost.

C. Parking: Confine parking to Gravel Parking Lot (North of Awatixa Village – Sakakawea Site).

D. Stockpiling: Confine stockpiling to locations shown on drawings, and additional staging locations mutually acceptable to the Contractor and the Contracting Officer.

E. Protection of Archeological Resources:
   1. The project is located in a significant and multi-component archeological site.
   2. The Contractor shall refer to Section 01 35 13.22 Archeological Protection and the 2025 Archeological Protection Plan which is included in the Contract Documents.

F. Preservation of Natural Features:

   1. Prevent damage to natural surroundings. Restore damaged areas, repairing or replacing damaged trees and plants, at no additional expense to the Government.
   2. Provide temporary barriers to protect existing trees and plants and root zones.
   3. Do not remove, injure, or destroy trees or other plants without prior approval. Consult with Contracting Officer and remove agreed-on roots and branches that interfere with construction.
   4. Do not fasten ropes, cables, or guys to existing trees.

5. Carefully supervise excavating, grading, filling, and other construction operations near trees to prevent damage.

G. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to Government employees, and emergency vehicles at all times. Do not use for parking or storage of materials. The private drives along County Road 37 north of the Visitor Center must always remain open.

1. Schedule deliveries to minimize use of driveways and entrances.
2. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

H. Construction Camp: Establishment of a camp within park will not be permitted.

I. Hauling Restrictions: Comply with legal load restrictions in hauling of materials. Load restrictions on park roads are identical to state load restrictions with such additional regulations as may be imposed by the Park Superintendent. Information regarding rules and regulations for vehicular traffic on park roads may be obtained from the Office of the Park Superintendent. A special permit will not relieve Contractor of liability for damage which may result from moving of equipment.

J. Bridge Restrictions: Contractor is responsible to comply with any applicable bridge restrictions.

1.6 PUBLIC USE OF SITE

A. The Gravel Parking Lot (North of Awatixa Village – Sakakawea Site) will be closed to the public during construction.

1.7 CONDUCT OF OPERATIONS

A. Contractor shall conduct his operations in conformance with rules and regulations promulgated by the Secretary of the Interior for the National Park Service, and applicable park rules and regulations prescribed by Park Superintendent.

B. Work on Saturdays, Sundays, Federal holidays or at night may not be performed.

C. No signs or advertisements (except those specified herein) shall be displayed on the construction site or within the park unless approved by the Contracting Officer.

1.8 WORK RESTRICTIONS

A. On-Site Work Hours: Work shall be generally performed during normal business working hours of 7 a.m. to 6 p.m., Monday through Friday, except when otherwise indicated.

1. Weekend and Federal Holiday Hours: No work shall be performed on the weekends or federal holidays without Contracting Officer's prior approval including the Fridays before Easter, Memorial Day, Labor Day, and Thursday July 3, 2025.
2. Early Morning Hours: Subject to Contracting Officer's approval.

B. The North Dakota Game and Fish Department requires that any in-water, or near-water, work avoids the April 15 — June 1 time frame to allow for undisturbed seasonal fish movement.

C. Existing Utilities

1. Existing Utilities: Notify Contracting Officer and utility companies of proposed locations and times for excavation.
2. Contractor shall be responsible for locating and preventing damage to known utilities. If damage occurs, repair utility at no additional expense to the Government.
3. If damage occurs to an unknown utility, repair utility. An equitable adjustment will be made in accordance with the Changes clause of the contract.

D. Nonsmoking Building/Tobacco Use/Vaping: Smoking is not permitted within building or within 25 feet of entrances, operable windows, or outdoor air intakes.

1. Smoking will be permitted in designated areas as approved by the Contracting Officer.
2. Smoking is not permitted while working or operating equipment.
3. Contractor shall provide a wildlife proof disposal container for cigarette butts. Cigarette butts shall not be disposed of on the ground.
4. Smoking shall not be permitted when fire danger is high as determined by Park personnel and regulation.

1.9 SPECIAL CONSTRUCTION REQUIREMENTS

A. Provide and maintain portable toilets and other temporary sanitation facilities that are bear resistant.

B. Install tree protection and temporary fencing to protect trees impacted by Construction, but not designated for removal by the Contracting Officer. Tree protection shall be completed in accordance with the Drawings.

1.10 SOILS INVESTIGATION REPORT

A. The report Geological Investigation Field Report for Knife River - Elbee Bend Bank Stabilization Project, Knife River Indian Villages National Historic Site, Stanton, ND, January 6, 2022, prepared by U.S. Army Corps of Engineers Omaha District is available with this package.

B. In case of conflict between report and drawings or specifications, the drawings and specifications govern.

1.11 ADDITIONAL REPORTS

A. The report Geotechnical Recommendations Report for Knife River - Elbee Bend Bank Stabilization Project, Knife River Indian Villages National Historic Site, Stanton, ND, October 22, 2024 prepared by Stantec Consulting Services Inc. is available with this package.

B. In case of conflict between report and drawings or specifications, drawings and specifications govern.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 11 00

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SECTION 01 26 01 – CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section consists of administrative and procedural requirements for contract modifications.

1.2 DEFINITIONS AND ALLOWANCES

A. Home Office Overhead: Costs incurred in support of all of a contractor's projects and not attributable to a specific job. The cost for home office overhead is only allowed as a percentage of all direct work excluding profit. The following items represent allowable home office overhead costs identified in Part 31 of the Federal Acquisition Regulation (FAR):

1. Rent
2. Utilities
3. Furnishings
4. Office equipment
5. Executive and management staff not exclusively assigned to the project
6. Support, accounting, and administrative staff
7. Preparation of cost proposals, estimating, and schedule analyses connected with Modifications
8. Estimating and preconstruction services
9. Mortgage costs
10. Real estate and corporate taxes
11. Automobile maintenance and travel costs for home office personnel
12. Home office insurances i.e. structure, automotive, umbrella, flood, etc.
13. Depreciation of equipment and other assets
14. Home office supplies (paper, staples, etc.)
15. Legal services
16. Accounting and data processing
17. Professional fees/registration

B. General Conditions (Field Office Overhead): Management and administrative costs incurred on site for the designated project. Costs associated with preparation of modifications will not be allowed. Costs for these items are to be included only in the general conditions of the modification estimate. Only in the case of a contract time extension are additional general conditions included in modifications. The following items, if applicable, are considered allowable costs for calculating General Conditions:

1. Project Manager (PM), Assistant Project Manager
2. Superintendent, Assistant Superintendent

3. Quality Control, Safety Officer, Environmental Manager, etc.
4. Engineers
5. Travel, lodging, and per diem (as established by Federal Travel Regulations)
6. Scheduling
7. Field Office Trailers and associated temporary utilities
8. Field office supplies

    a. Mailing and couriers
    b. Reproduction costs
    c. Storage
    d. Phones
    e. Computers
    f. Copiers

9. Personal vehicles i.e. Superintendent Pickup trucks

C. General Requirements: Costs directly associated with the project and are necessary to perform the actual work of the modification. These costs shall be shown as direct costs in the estimate. The following items, if applicable, are considered allowable costs for calculating General Requirements:

1. Hoisting
2. Material handling
3. Temporary fencing
4. Port-a-lets
5. Trash removal, dumpsters
6. Barricades
7. Small tools
8. Safety supplies
9. Scaffolding
10. Daily cleaning
11. Traffic control
12. Temporary signage
13. Temporary heating and power

D. Personnel Costs: Costs included in the modification must only be for General Conditions staff and workers actually present and working on project site. Modification costs for salaried workers are only allowed within the structure of a 40-hour week and no overtime or holiday pay will be allowed.

1. Worker Hourly Rates are costs directly associated with the individual worker and consist of the following:

    a. Base Rate: The hourly rate paid directly to the worker
    b. Labor Burden: Employer payments of all applicable burdens; includes insurance and taxes the business must pay on behalf of the worker to government entities and educational forums, such as:

        1) Social Security

2) Medicare
3) Workers Compensation – Policy and company calculation to be made available.
4) Federal Unemployment Tax Act (FUTA) - Cap Rate and percentage to be proportionally allocated over one year.
5) State Unemployment Tax Act (SUTA) - Cap Rate and percentage to be proportionally allocated over one year.
6) Union agreement costs - Other costs required under an enforceable collective bargaining agreement.

c. Fringe Benefits: Various non-wage compensations provided to employees such as:

1) Health Care Insurance Premiums
2) Cell Phone
3) Clothing
4) 401K and Pensions
5) Vehicle allowances
6) Gas allowance
7) Life insurance premiums
8) Disability insurance
9) Other Fringe Benefits required under an enforceable collective bargaining agreement

E. Bonuses or Deferred Compensation: No Bonus or Deferred Compensation will be allowed within any components of pricing including Home Office Overhead, General Conditions, General Requirements, Hourly Worker Rates, or the direct costs of work.

F. General Liability Insurance: An insurance policy that protects Contractor from claims resulting from bodily injury or property damage to a third party. Include as a separate line item within all modification proposals and provide a current insurance quote upon request.

G. Performance and Payment Bonds: A performance bond is a surety bond issued by an insurance company or bank to guarantee satisfactory completion of a project. The Payment Bond guarantees the Contractor will pay the labor and material costs incurred. Banks and Insurance companies charge a premium for individual project based on a sliding scale related to the size of the project. Include as a separate line item in modification proposals and provide current company bonding rates upon request.

H. Builder's Risk Insurance: Covers the contractor's loss due to fire, high winds, or other natural forces. Not reimbursed by the National Park Service (NPS) and shall not be included in modification proposals.

1.3 MODIFICATION PROPOSAL PRICING REQUIREMENTS

A. General:

1. Proposal be received in the format and within the time frame specified in the Request for Proposal (RFP) letter. Costs or delays resulting from failure of contractor to submit within the time frame specified will not be compensable.
2. Proposal shall be detailed with itemized lists of equipment, materials, labor, production rates, overhead, profit, and bond markup for each item. Labor costs must be itemized by craft and hourly rate, including Fringe Benefits and Labor Burden. If the costs of Fringe Benefits and Labor Burden are not itemized, it is assumed they are included in the hourly rate shown, or contractor is not requesting reimbursement. Contractor may utilize the government provided Contractor Estimate Form, or their own form, provided that it contains the same information and level of detail as the Government's form.
3. Requests for extensions of contract time as a result of change must be justified with a Time Impact Analysis (TIA). Refer to Section 01 32 16 "Construction Schedule", for time impact analysis requirements. TIA and associated costs shall be received with the proposal by the date shown within the Request for Proposal letter. Contractor's failure to submit within the specified time frame will be construed as the Contractor waiving right for additional time and no time extension will be allowed.
4. All supporting documentation used to justify the proposed modification will be made available to the Contracting Officer (CO) upon request.
5. Contractor shall review and approve all subcontractor/supplier pricing in detail for proper format, scope, production rates, and pricing prior to submission to NPS. All delay costs associated with not reviewing and approving subcontractor/supplier pricing will be borne by the Contractor.
6. All pricing and production rates within the estimate must be based on fair and reasonable pricing and cannot include built-in contingency.

B. Labor:

1. Contractor shall estimate cost of labor by itemizing each craft involved, indicating worker hourly rate (base rate + labor burden + fringe benefits) for each and itemizing hours required for each craft directly engaged in modification work. Any work proposed requiring overtime work or premium pay shall be itemized separately. Rates shall be in accordance with the Davis-Bacon Act as incorporated herein. Labor Burden may include payroll taxes, Social Security, unemployment insurances, workers compensation insurance, Federal Insurance Contributions Act (FICA), FUTA, and other direct costs resulting from Federal, State or local laws.
2. Itemize labor costs for equipment operators separate from equipment costs.
3. Labor cost for foremen shall only be costs for related work required for the modification.

C. Materials:

1. Estimated cost for materials shall include quotes from multiple sources. Material prices shall include applicable fees and credits, including but not limited to, sales tax, freight and delivery charges, and tax rebates.
2. No markup shall be applied to any material provided by NPS.

D. Equipment:

1. Equipment used for the project must be appropriately sized for work being performed.
2. Do not include costs for "miscellaneous tools and equipment", in your proposal for a replacement value of $500 or less. Costs shown in excess of $500 shall be broken out separately.
3. Regardless of ownership, rates to be used in determining equipment rental costs shall be the lowest cost from one of the following sources:

    a. United States (U.S.) Army Corps of Engineers, Ownership and Operating Expense Schedule (use latest edition and applicable region)
    b. Construction Blue Book
    c. Local equipment rental rates, documented by actual invoice charges, or itemized vendor quotes.

4. Estimated equipment rates shall include operating costs of all fuel, oil, lubrication, supplies, small tools, necessary attachments, ground engaging components, tires and tracks, routine repairs and maintenanc (cost of major repair and overhaul is not allowed per Federal Acquisition Regulation (FAR) 31.105(d)(2)), depreciation, storage, insurance, and all incidentals. Mobilization, if applicable, may be included for equipment solely used on the modification work but must be listed separately.
5. Estimate full rate for equipment only for duration that equipment will be utilized to accomplish work of the modification.
6. Standby unit rates used in accordance with paragraph 1.3, D, 2, above. If the U.S. Army Corp of Engineers is utilized then their standby rates prevail. If Bluebook or local equipment pricing is accepted, then 1/2 of equipment costs minus any operating costs, major repair and overhaul will be accepted.
7. If equipment is in standby mode due solely to a documented NPS delay, established standby rate shall apply from the first day of the delay.
8. Equipment not used and on job site for up to five consecutive days may be classified at standby rates, provided the equipment is or has been used solely to perform work on the modification and will be necessary to complete additional modification work. Equipment still on the jobsite but not in use after five consecutive days will not be considered in the modification pricing.
9. Requests for compensation for equipment stand by time must be justified, documented and itemized separately.
10. The estimated timeframe (daily, weekly, monthly) for use of the equipment must reflect the lowest cost to the Government.

E. Establishment and Application of Overhead and Profit Percentages:

1. Home Office Overhead and Profit (OH&P) shall be applied to direct costs only. Profit shall not be applied to overhead amounts; and overhead shall not be applied to profit. Home office overhead shall contain only allowable, allocable, and reasonable costs per the contract documents and FAR Part 31. Profit percentages are based on risk factors found in FAR Part 31which have been applied to the specific type of work included in this project. Negotiated rates shall not exceed the following percentages for OH&P for contractor self-performed work:

    Overhead……10%
    Profit……..……9.5%

2. Total aggregate limit of markup (OH&P) for Contractor and Subcontractors on modification work shall not exceed 25%. The NPS will not be responsible for allocation of percentages between contractor and subcontractors at any tier.
3. If Contractors form a partnership, partnership may only receive home office overhead and profit in same amount as an individual Contractor (refer to paragraph 1.3,E,1 above). It is the responsibility of the partners to decide on division of revenue.
4. Combined Increases and Decreases: On proposals involving both increases and decreases in the Contract Price, overhead and profit mark-ups are required on net increases and deducted on net decreases.
5. At no time can profit be calculated on Overhead or itself, it must be calculated on direct costs of work only.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 26 01

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SECTION 01 27 00 – DEFINITION OF CONTRACT LINE ITEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section explains in general, what is and is not included in a contract line item, and limits or cut-off points where one item ends and another begins.

B. If no contract line item exists for a portion of work, include costs in a related item. Provide all labor, materials, tools, equipment, services, and incidentals as necessary to perform the work as described in this section and in accordance with the Contract Documents and Drawings and to the satisfaction of NPS.

C. Conformance with the requirements of this section shall in no way relieve the Contractor from his/her responsibilities for compliance with laws, regulations, orders, and decrees, or responsibilities for public safety and convenience applicable to the Project, and the provisions of the Contract Documents.

D. Any estimated quantities of major elements of the work shown in the Drawings are approximate. It is the Contractors responsibility to visit the project site prior to bid to identify existing conditions that will affect the work and determine the quantities of material required to complete the work.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 GENERAL

A. The Contractor shall perform all work necessary to construct and deliver to NPS a complete Project conforming to the Contract Documents. Details not shown or provided in the Drawings and Specifications, but required for a complete and operational Project, shall be included in the Contract Price as approved by NPS.

3.2 LIST OF CONTRACT LINE ITEMS

A. Contract Line Item Number 0001 (CLIN 0001) Mobilization and Demobilization – CLIN 0001 shall include but not be limited to Mobilization and Demobilization, Clearing and Grubbing, Construction Surveying and Staking, As-built Survey.

1. This item consists of work pertaining to the Mobilization and Demobilization, to and from the site, as defined in the contract documents as well as clearing and grubbing, construction surveying and staking and as-built surveying.
2. Measurement for payment will be determined and paid according to the following schedule:

a. 50% of bid amount when at least 10% of the remainder of the Contract amount is complete.
b. 25% of bid amount when at least 50% of the remainder of the Contract amount is complete.
c. 25% of bid amount when at least 75% of revegetation or restoration (whichever occurs later) pay item is paid.

3. Payment will be made at the contract lump sum price.
4. The total amount bid shall not exceed 10% of the total bid amount.

B. Contract Line Item Number 0002 (CLIN 0002) River Embankment Stabilization – CLIN 0002 Shall include but not be limited to Silt Fence, Silt Curtain, Oil Boom, Temporary Rock Construction Entrances, Temporary Seeding, Temporary Tree Protection, Unclassified Excavation, Embankment Fill, Excess Fill Stored Onsite, Void-Filled Riprap and Bedding.

1. This item consists of all work pertaining to the items noted above and as shown in the contract documents.
2. Measurement for payment will be determined based on percent of construction complete.
3. Payment will be made at the contract lump sum price.
4. This price is full compensation for furnishing and placing materials required, including embankment and surfacing; excavation and stockpiling of excavated material; watering and compacting; furnishing, installing, and removing drainages structures; removal of access road and temporary river crossing; disposal of materials; and equipment, labor, tools, and incidentals

C. Contract Line Item Number 0003 (CLIN 0003) Site Restoration – CLIN 0003 shall include but not be limited to Permanent Access Road, Seeding and Restoration.

1. This item consists of work pertaining to installation of the Permanent Site Access Road, seeding and restoration as shown in the contract documents. Removal of the Temporary Site Access road and Temporary River Crossing shall also be included in this bid item.
2. Measurement for payment will be determined based on percent of construction complete.
3. Payment will be made at the contract lump sum price.
4. This price is full compensation for furnishing and placing materials required, including embankment and surfacing; excavation and hauling of excavated material; watering and compacting; furnishing, installing, and removing drainages structures; disposal of materials; and equipment, labor, tools, and incidentals.

D. Contract Line Item Number 0004 (CLIN 0004) BID ALTERNATE ITEM - TOPSOIL AND EROSION CONTROL

1. This item consists of work pertaining to importing topsoil, movement and placement of imported and onsite topsoil, erosion control blanket and matting and mulching as shown in the Contract Documents.
2. Measurement for payment will be determined based on percent of construction complete.
3. Payment will be made at the contract lump sum price.
4. This price is full compensation for furnishing and placing materials required, including embankment and surfacing; excavation and hauling of excavated material; watering and compacting; disposal of materials; and equipment, labor, tools, and incidentals.

E. Contract Line Item Number 0005 (CLIN 0005) BID ALTERNATE ITEM - TEMPORARY ACCESS ROAD AND TEMPORARY RIVER CROSSING

1. This item consists of work pertaining to installation of the Temporary Site Access Road, Temporary River Crossing, and culverts associated with the Temporary River Crossing as shown in the Contract Documents.
2. Measurement for payment will be determined based on percent of construction complete.
3. Payment will be made at the contract lump sum price.
4. This price is full compensation for furnishing and placing materials required, including embankment and surfacing; excavation and hauling of excavated material; watering and compacting; furnishing and installing drainage structures; disposal of materials; and equipment, labor, tools, and incidentals.

END OF SECTION 01 27 00

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Price Schedule
Supplement to Section 01 27 00 - Definition of Contract Line Items

Contract Line Item	Contract Line Item Title[1]	Quanitity	Unit of Measurement	Unit Price	Subtotal
CLIN 0001	Mobilization and Demobilization	1	Lump Sum (LS)		
CLIN 0002	River Embankment Stabilization	1	Lump Sum (LS)		
CLIN 0003	Site Restoration	1	Lump Sum (LS)		
CLIN 0004	*Bid Alternate - Topsoil and Erosion Control*	*1*	*Lump Sum (LS)*		
CLIN 0005	*Bid Alternate - Temporary Access Road and Temporary River Crossing*	*1*	*Lump Sum (LS)*		
				Total Base Bid $ (CLIN 0001-0003)	
				Total Base Bid with Bid Alternates $ (CLIN 0001-0005)	

[1]Refer to Section 01 27 00 for Complete Descriptions

Total Written Amount of Base Bid

Total Written Amount of Base Bid with Bid Alternates

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SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:

1. Definitions
2. Construction Coordination
3. Submittals
4. Coordination Drawings
5. Requests for Information (RFIs)
6. NPS/DSC Project Website
7. Project Meetings
8. Environmental Coordination
9. Permits

B. Related Requirements:

1. Section 01 32 16 "Construction Schedule" for preparing and submitting Contractor's construction schedule.
2. Section 01 73 40 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
3. Section 01 77 00 "Closeout Procedures" for coordinating closeout of the Contract.

1.2 DEFINITIONS

A. Agency with Jurisdiction: An organization, agency, office, or individual that has been granted legal authority over a location, action, or resource. This authority includes the ability to issue a permit or other legal permission document. Responsibility for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

B. Construction Permits – Contractor Provided: Permits that will be applied for and obtained by the Contractor based on the means and methods to conduct the work. Construction Permits are typically issued by the Agency to the Contractor and not to the National Park Service. Examples of typical Contractor Provided Permits are: National Pollutant Discharge Elimination System (NPDES) Construction Permit (ground disturbance), dewatering permit, permit for work in a roadway (with traffic management plan), temporary utility tap permit, etc.

C. Government Furnished (GF) Permits: Obtained by National Park Service (NPS), usually through the Architect/Engineer (A/E) or a consultant, during the design process (Predesign (PD) through Construction Documents (CD)) and are usually concerned with impacts to resources protected by federal law. However, GF permits can include other permits that are obtained for the convenience

of the Government during design. GF permits are "furnished" to the Contractor in the Request for Proposal (RFP) and as part of the final contract documents. The Contractor must comply with GF permit provisions. Examples of typical GF permits: Clean Water Act (CWA) 404 dredge and fill permit, CWA Water Quality Certification (often state administered), Highway Right-of-Way Permit, etc.

1.3 CONSTRUCTION COORDINATION

A. Coordination: Coordinate construction operations included in different Sections of Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, which depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components with other Construction Contractors to ensure maximum accessibility for required maintenance, service, and repair.
3. Make provisions to accommodate items scheduled for later installation.
4. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of components, including mechanical and electrical.
5. Properly plan construction operations to include permit requirements. Allow enough time to execute permit provisions to maintain work schedule, site visits, inspections, and reporting deadlines.

B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other Construction Contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to:

1. Preparation of Construction Contractor Construction Schedule
2. Preparation of the Schedule of Values
3. Installation and removal of temporary facilities and controls
4. Delivery and processing of submittals
5. Progress meetings
6. Permit requirements
7. Pre-installation conferences
8. Project closeout activities

1.4 SUBMITTALS

A. Division 1 documents: The following items shall be submitted a minimum of one week prior to Preconstruction Conference. Contracting Officer will notify Contractor of tentative date for Pre-Construction Conference.

1. Letter designating Project Superintendent

2. Construction Schedule
3. A Comprehensive Schedule of Values
4. Accident Prevention Plan
5. A List of Subcontractors for this project
6. Written statements from Subcontractors certifying compliance with applicable labor standard clauses.
7. Certificates of Insurance and Standard Form SF1413 for Contactor and all Subcontractors
8. Waste Management Plan
9. Quality Control Plan
10. Temporary Storm Water Pollution Prevention Plan (SWPPP)
11. Historic Preservation Treatment Plan (HPTP)
12. List of Required Construction Permits. Include the following information for each permit:
    a. Name of Permit
    b. Agency(ies) with Jurisdiction issuing the permit
    c. Information required from Government to complete permit application

B. Provide items listed to Contracting Officer at least one week prior to Pre-Construction Conference, or as directed by Contracting Officer.
   1. Failure to submit items may result in:
      a. Construction conference may be cancelled, Notice to Proceed may not be issued, and Contracting Officer will consider other contractual remedies.
      b. Work shall not commence until written Notice to Proceed has been issued and Certificates of Insurance and SF1413 documents are received for Construction Contractor and all Subcontractors.

1.5 REQUESTS FOR INFORMATION (RFIs)

A. General: Immediately on discovery of the need for additional information or interpretation of Contract Documents, Contractor shall prepare and submit an RFI utilizing form created on NPS/DSC management software-website.

   1. Contracting Officer will not respond to RFIs submitted by other entities controlled by Contractor.
   2. Coordinate and submit RFIs in a prompt manner to avoid delays in the work.

B. Content of RFI: Include detailed, legible description of item needing information or interpretation and the following:

   1. RFI number, numbered sequentially
   2. Date
   3. RFI subject
   4. Specification Section number and title and related paragraphs, as appropriate.
   5. Drawing number and detail references, as appropriate.
   6. Field dimensions and conditions, as appropriate.
   7. Construction Contractor's suggested resolution: If suggested resolution impacts Contract Time or Contract Sum, Construction Contractor shall state impact in RFI.
   8. Construction Contractor's signature
   9. Requested date for response

10. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.

    a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.

C. RFI Form: Complete RFI Form on NPS/DSC Project Website as follows:

1. Enter general information at the top of the form.
2. Under the "Action" section at the bottom of the form, select "Question" then select "CMR" in drop-down of "Send to" box.
3. Enter details of question and attach related documents.
4. Select "Submit Form" at bottom of page.

D. Contracting Officer’s Action: Contracting Officer will review each RFI, determine action required, and respond. Contracting Officer will determine critical nature of each RFI and issue response accordingly.

1. The following are not considered to be RFIs and will receive no action:

    a. Requests for approval of submittals.
    b. Requests for approval of substitutions.
    c. Requests for approval of Construction Contractor's means and methods.
    d. Requests for coordination information already indicated in Contract Documents.
    e. Requests for adjustments in Contract Time or Contract Sum.
    f. Requests for interpretation of Architect's actions on submittals.
    g. Incomplete RFIs or inaccurately prepared RFIs.

2. Contracting Officer's action may include a request for additional information; time for response will date from time of receipt of additional information.
3. Contracting Officer's action on RFIs may result in need for a change to Contract Time or Contract Sum. All contract changes will be processed following terms and conditions of contract.

1.6 PROJECT MANAGEMENT AND COMMUNICATION SOFTWARE

A. Use to manage project communication and document sharing during contract period on:

1. Project directory
2. Project correspondence
3. Meeting agendas and minutes
4. Contract modifications forms and logs
5. RFI form and processing
6. Task and issue management
7. Photo documentation
8. Baseline schedule, schedule updates and calendar management
9. Submittal form and processing
10. Payment coordination documentation
11. Reminder and tracking functions

12. Archiving functions
13. Notification of submittal and RFI statuses and current responsible party
14. Permits and addendums

B. Some documents are not suitable to be shared using NPS project management and communication software. Documents containing Personal Identifying Information (PII) (i.e. certified payrolls) shall not be shared and shall be coordinated with project team as appropriate.

1.7 PROJECT RECORD DRAWINGS

A. A set of record drawings shall be kept current with all updates to the construction drawings that incorporate the results of RFIs and all as-built conditions.

B. Record drawings shall be available to the Contracting Officer for inspection at the time of month progress payment requests to ensure they are current and encompass the work completed to date.

C. Complete record drawings are required deliverable of this contract. See Section 01 77 00 Closeout Procedures for additional information on project record drawings.

1.8 PROJECT MEETINGS

A. Preconstruction Conference: Before start of construction, Contracting Officer will arrange an on-site meeting with Contractor. Meeting agenda will include the following as a minimum:

1. Roles & Responsibilities / Lines of Authority
2. Park rules and regulations
3. Jobsite Safety
4. Resolution of comments on required Division 1 documents
5. Coordination of Subcontractors
6. Labor law application
7. Modifications
8. Payments to Contractor
9. Payroll reports
10. Contract time
11. Liquidated damages
12. Contractor Performance Evaluation
13. Display of Hotline posters
14. Notice to proceed
15. Correspondence procedures
16. NPS/DSC Project website
17. Acceptance/rejection of work
18. Progress meetings
19. Submittal procedures
20. NPS Final Accessibility Inspection
21. Environmental requirements
22. Permit requirements
23. As-constructed drawings
24. Saturday, Sunday, holiday and night work.
25. Reference materials

26. Value engineering
27. Schedule of Values

B. Progress Meetings: Contracting Officer will schedule weekly meetings with Contractor.

1. Attendees: In addition to Government Representatives, each Contractor, Subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented. Participants at meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Meeting agenda will include:

    a. Approval of minutes of previous meetings
    b. Submittal status
    c. Review of off-site fabrication and delivery schedules.
    d. Requests for information (RFI) and other issues.
    e. Modifications
    f. Work in progress and projected.
        1) Status of required inspections (Special Inspections, Accessibility, etc.)
    g. Inspections of work in progress and projected (Special inspections, Accessibility, etc.)
    h. Construction Schedule update (provide updated Critical Path Method (CPM)).
    i. Status of Project Record Drawings
    j. Other business relating to work.
    k. Permit requirements

C. Preinstallation Conferences:
1. Conduct a pre-construction conference for all major scopes of work. These activities shall include:
    a. erosion and sediment control installation,
    b. culvert installations, temporary river crossing and primary access road installation (Temporary Access Road 1 as shown on the Drawings),
    c. secondary access road work (Access Road 2 as shown on the Drawings),
    d. embankment excavation and fill,
    e. tension crack repair work,
    f. riprap installation, and
    g. seeding and restoration.

2. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend meeting. Advise Contracting Officer of scheduled meeting dates.
3. Agenda: Review progress of other construction activities and preparations for particular activity under consideration, including requirements for:

    a. Contract Documents
    b. Options
    c. Related RFIs
    d. Related Change Orders
    e. Purchases
    f. Deliveries

g. Submittals
h. Possible conflicts
i. Compatibility requirements
j. Time schedules
k. Weather limitations
l. Manufacturer's written instructions
m. Warranty requirements
n. Compatibility of materials
o. Acceptability of substrates
p. Temporary facilities and controls
q. Space and access limitations
r. Regulations of agency(ies) with jurisdiction
s. Testing and inspecting requirements
t. Installation procedures
u. Coordination with other work
v. Required performance results
w. Protection of adjacent work
x. Protection of construction and personnel
y. Discussion of risk identification and mitigation.

4. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
5. Reporting: Distribute minutes of meeting to each party present and to other parties requiring information.
6. Do not proceed with installation if conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene conference at earliest feasible date.

1.9 ENVIRONMENTAL COORDINATION

A. Contractor's Environmental Manager: Designate on-site party responsible for overseeing Contractor's conformance to environmental goals for project and implementing procedures for environmental protection.

1. Qualifications: Minimum 3 years Construction experience on projects of similar size and scope; with environmental procedures similar to this project; familiar with environmental regulations applicable to construction operations.
2. Responsibilities: Responsibilities shall include:

a. Compliance with applicable Federal, State, and local environmental regulations, including maintaining required documentation.
b. Implementation of Waste Management Plan (WMP).
c. Implementation of NPDES permit requirements & Storm Water Pollution Prevention Plan (SWPPP).
d. Present overview of environmental issues and summarize site specific procedures relating to management plans at Preconstruction conference.
e. Training for Contractor personnel in accordance with position requirements.
f. Monitoring and documentation of environmental procedures.

B. Perform project quality control in accordance with requirements specified in Related Sections, including:

1. Quality Requirements
2. Regulatory Requirements
3. Temporary Storm Water Pollution Prevention Environmental Management
4. Construction Waste Management

C. Contractor's Environmental Training Program: Contractor shall provide environmental training for workers performing work on project site. Training shall include:
1. Overview of environmental issues related to Project.
2. Review of site-specific procedures and management plans:

a. Construction Waste Management
b. Temporary Storm Water Pollution Prevention

3. Pollution Prevention (P2) practices: Submit evidence of P2 training, participation in P2 programs, and familiarity with P2 practices.
4. Compliance with environmental regulations: As specified in Regulatory Requirements. Submit Contractor 40 CFR (Code of Federal Regulations) employee training records upon request of Contracting Officer.

D. Provide documentation for environmental procedures as specified herein and in accordance with approved Waste Management Plan, and Storm Water Pollution Prevention Plan.

1.10 PERMITS

A. General:

1. Permits and Responsibilities: Construction Contractor shall, without additional expense to the Government, be responsible for obtaining necessary licenses and permits, and for complying with Federal, State and municipal laws, codes, and regulations applicable to the performance of the work. Construction Contractor shall also be responsible for damages to persons or property that occur as a result of Construction Contractor's fault or negligence; and for materials delivered and work performed until completion and acceptance of the work.
2. For the purpose of this contract, Construction Contractor will not be considered an agent of the Government. Construction Contractor shall comply with appropriate Federal, State and local laws.

B. Government Furnished Permits: During development of the project's design, permits listed below were negotiated and agreed to by the Government. Terms and provisions of these permits shall be adhered to for the duration specified in each permit.

1. CWA Section 404 Standard Individual Permit – United States Army Corps of Engineers - Northwestern Division, Omaha District, North Dakota Regulatory
2. CWA Section 401 Water Quality Certification - North Dakota Department of Environmental Quality, Water Quality Division
3. North Dakota Sovereign Lands Permit - North Dakota State Water Commission Office of the State Engineer
4. Floodplain Permit / No Rise Certification – North Dakota Department of Water Resources

C. Potential Permits: Permits listed below were identified during the design process as likely to be required based on typical means and methods of construction. The list is provided to assist Contractor in determining which permits will be required for contract's chosen means and methods. The list shall not be considered complete; it is the Contractors' responsibility to determine means and methods and obtain required permits. Contractor shall obtain all permits required to legally conduct work.

1. NDPDES General Permit for Temporary Dewatering – North Dakota Department of Environmental Quality
2. CWA 402 NPDES Construction Stormwater Permit - North Dakota Department of Environmental Quality
3. Road Approach Permit – Mercer County
4. Utility Permit – Mercer County

D. Coordination with Agency(ies) with Jurisdiction Issuing Permits

1. Coordination: Contact the Agency(ies) with Jurisdiction as needed and sufficiently in advance to avoid delaying work: Coordinate meetings, reporting requirements, inspections, and other requirements.

E. Administrative Procedures:

1. Coordinate scheduling and timing of required administrative provisions of project permits with Agency(ies) with Jurisdiction, Construction Manager, and Park to avoid conflicts.
2. Supply needed information to Agency(ies) with Jurisdiction issuing permits, pay fees required and provide material needed to comply with permit's conditions and provisions.
3. Upload permits to NPS/DSC management software website when permits are obtained.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 31 00

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 32 16 – CONSTRUCTION SCHEDULE

PART 1 - GENERAL

1.1 SUMMARY

A. Section consists of Construction Schedule requirements including:

1. Schedule of Values
2. Construction Schedule Requirements
3. Construction Schedule Updates
4. Time Impact Analysis

B. Purpose: The Construction Schedule ensures adequate planning, coordination, scheduling, and reporting during execution of the work by the Contractor. It shall assist the Contractor and Contracting Officer in monitoring the progress of the work, evaluating proposed changes, and processing Contractor's monthly progress payments. It shall include the dates in the contract, phases, milestones, occupancies, holidays, weather consideration, a critical path, and the requirements of this section.

1.2 DEFINITIONS

A. Activity: A discrete part of a project identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.

1. Critical activities are activities on the critical path. They start and finish on the planned early start and finish times.
2. Predecessor Activity: An activity that precedes another activity in the network.
3. Successor Activity: An activity that follows another activity in the network.

B. Cost Loading: Allocation of the Schedule of Values for completion of an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum, unless otherwise approved by the Contracting Officer.

C. Critical Path Method (CPM): Method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.

D. Critical Path: Longest connected chain of interdependent activities through the network schedule that establishes minimum overall Project duration and contains no float.

E. Float: Measure of leeway in starting and completing an activity.

1. Float: Not for the exclusive use or benefit of the Government or Contractor but is jointly owned.

2. Free Float: Amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
3. Total Float: Measure of leeway in starting or completing an activity without adversely affecting planned Project completion date.

F. Resource Loading: Allocation of manpower and equipment necessary for completion of an activity as scheduled.

G. Fragnet: A partial or fragmentary network that breaks down activities into smaller activities for greater detail.

1.3 SUBMITTALS

A. Electronic Copies: Schedules and reports submitted shall be posted on the NPS/DSC project management and communication software as PDF (portable document format) files. The intent of the Government is to limit the number of printed reports to those determined by the project team as essential.

B. Schedule of Values: After contract award and before Pre-Construction conference, submit schedule of dollar values based on Contract Price Schedule.

C. Construction Baseline Schedule: After contract award and before Pre-Construction conference, submit two paper copies of baseline schedule, large enough to show entire schedule for entire construction period. Utilize Schedule of Values in preparation of Construction Baseline Schedule.

D. Critical Path Method (CPM) Reports: Concurrent with CPM schedule, submit three paper copies of the following computer-generated reports. For each activity, include activity number, activity description, cost and resource loading, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.

1. Activity Report: List of activities sorted by activity number and then early start date, or actual start date if known.
2. Logic Report: List of predecessor and successor tasks for activities sorted in ascending order by activity number and then early start date, or actual start date if known.
3. Total Float Report: List of activities sorted in ascending order of total float.

E. Construction Schedule Updates: On or before 7th day preceding progress payment request date, submit estimates of percent completion of each schedule activity and necessary supporting data. Provide two paper copies.

F. Construction Schedule Revisions and Time Impact Analysis: For each Construction Schedule revision, submit two paper copies of a Time Impact Analysis. Incorporate a Fragmentary Network (Fragnet) into currently accepted Construction Schedule that demonstrating how Contractor proposes to incorporate a modification, change, delay, or Contractor request.

1.4 QUALITY ASSURANCE

A. Contractor shall meet with Contracting Officer on day of the preconstruction conference to go over:

1. Review software limitations, content and format for reports.
2. Verify availability of qualified personnel needed to develop and update schedule.
3. Discuss constraints, including phasing, work stages, area separations, interim milestones, substantial completions.
4. Review delivery dates for Government-furnished products.
5. Review schedule for work of separate Government contracts.
6. Review time required for review of submittals and re-submittals.
7. Review requirements for tests and inspections by independent testing and inspecting agencies.
8. Review time required for completion and startup procedures.
9. Review time required for obtaining and activating permits.
10. Review and finalize list of construction activities to be included in schedule.
11. Review baseline schedule comments, resolve issues and progress on incorporating them
12. Review procedures for updating schedule.
13. Discuss reporting requirements and establish protocol for naming and transmitting electronic schedules.

B. Contractor's Schedule Representative: Before the preconstruction conference, designate an authorized representative to be responsible for preparing and maintaining the Construction Schedule. Submit resume outlining qualifications of Scheduler to Contracting Officer for acceptance. Scheduler shall have prepared and maintained at least 5 previous schedules of similar size and complexity similar to this Contract, demonstrating proficiency of using scheduling software. Authorized representative will be responsible for preparing the Baseline Schedule, required updates, revisions, Time Impact Analyses, and reports.

1.5 COORDINATION

A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate Contractors.

B. Coordinate Construction Baseline Schedule with Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.

1. In developing Construction Baseline Schedule, ensure Subcontractor’s work at all tiers, and prime Contractor’s work, is included and coordinated.
2. Secure time commitments for performing critical elements of work from parties involved.
3. Coordinate each construction activity in network with other activities and schedule in proper sequence.

PART 2 - PRODUCTS

2.1 SCHEDULE OF VALUES

A. Breakdown each lump-sum item into component work activities used in the schedule for which progress payments may be requested. Work activities broken out within schedule of values shall be integrated into and made a logical part of the construction baseline schedule. Total costs for the component work activities shall equal contract price for that lump-sum item. Contracting Officer may

request data to verify accuracy of dollar values. Include mobilization, general condition costs, overhead and profit in the total dollar value of unit price items and in the component work activities for each lump-sum item. Do not include mobilization, general condition costs, overhead or profit as a separate item.

B. Do not break down unit price items. Use only the contract price for unit price items.

C. Total cost of all items shall equal the contract price. The Schedule of Values will form the basis for progress payments and the Construction Schedule.

D. An acceptable Schedule of Values shall be agreed upon by the Contractor and Contracting Officer before the first progress payment is processed.

2.2 CONSTRUCTION SCHEDULE REQUIREMENTS

A. Construction Baseline Schedule: Prepare Construction Baseline Schedule using a computerized, cost and resource-based**,** time-scaled Critical Path Method network analysis diagram for the Work.

1. Develop and finalize Construction Baseline Schedule so it can be accepted for use no later than 30 days after date established for the Notice of Award.

    a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing work within applicable completion dates, regardless of Governments acceptance of schedule.

2. Establish procedures for monitoring and updating Construction Baseline Schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.

B. Construction Baseline Schedule Preparation: Prepare a list of all activities required to complete the Work. Using preliminary Critical Path Method network diagram, prepare a skeleton network to identify probable critical paths.

1. Activities: Indicate estimated duration, sequence requirements, and relationship of each activity in relation to other activities.
2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the Critical Path Method schedule within the limitations of the Contract Time.
4. Show sequence and interdependence of activities required for completion of work. Ensure work sequences are logical and Construction Baseline Schedule shows a coordinated plan of the work.
5. Resource loading of each activity shall include personnel by labor category and equipment type and capacity proposed to complete the activity in duration shown.
6. Consider seasonal weather conditions in planning and scheduling work influenced by high and low ambient temperatures, wind, or precipitation to ensure completion of work within contract time.

7. Time Frame: Proposed duration assigned to each activity shall be Contractor's best estimate of time required to complete activity considering the scope and resources planned for activity.

   a. An early finish date may be shown but the late finish date shall be same date as last day of contract period. An early completion schedule shall contain:

      1) Insert an activity titled "Project Float" as a successor to last activity in early project completion schedule network.
      2) Add a milestone titled "Contract End Date" as a successor to the activity "Project Float".
      3) Add duration to the activity "Project Float" as required so the milestone "Contract End Date" equals the last day of Contract Period.

   b. Contract completion date shall not be changed by submission of a schedule that shows an early completion date.
   c. Contractor shall limit use of lead or lag durations between schedule activities.
   d. Project Calendars: Develop and incorporate the following calendars:

      1) Administrative Calendar: Include calendar based on a 7-day week to be used on activities based on calendar days. Apply this calendar to administrative tasks or other tasks not affected by non-working days (Federal Holidays, weather, etc.).
      2) Project Calendar: Include calendar based on planned work week for the project. Include Federal Holidays, weekends, and non-workdays indicated in contract documents. Apply this calendar to activities not anticipated to be affected by weather. Be clear when identifying number of work days in work week.
      3) Weather Calendar: Utilize Project Calendar and show anticipated normal downtime related to weather as non-working time. Weather days shall be based on data for local area from a reliable source like the National Oceanic and Atmospheric Administration (NOAA), National Park Service records, or source acceptable to Contracting Officer. Apply this calendar to activities anticipated to be affected by weather.

   e. Activity Duration: Define so no activity is longer than 14 days, except for non-construction activities including mobilization, shop drawings and submittals, fabrication and delivery of materials and equipment.
   f. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 calendar days, as separate activities in the schedule. Procurement cycle activities can include submittals, approvals, purchasing, fabrication, and delivery.
   g. Submittal Review Time: Include review and re-submittal times indicated. Coordinate submittal review times in Construction Baseline Schedule.
   h. Substantial Completion: Allow time for Government administrative procedures necessary for certification of Substantial Completion. (For more information, refer to Specification 01 77 00 "Closeout Procedures.")

8. Constraints: Include constraints and work restrictions indicated in Contract Documents and as follows in schedule and show how the sequence of Work is affected.

   a. Phasing: Arrange list of activities on schedule by phase.
   b. Work under More Than One Contract: Include a separate activity for each contract.
   c. Work Restrictions: Show effect of the following on the schedule:

1) Coordination with existing construction
2) Uninterruptible services
3) Use of premises restrictions
4) Provisions for future construction
5) Seasonal variations
6) Environmental control
7) Permit provisions

d. Work Stages: Indicate important stages of construction for each major portion of the Work.
1) Subcontract awards
2) Submittals
3) Purchases
4) Mockups / Samples
5) Fabrication
6) Sample testing
7) Deliveries
8) Installation
9) Tests and inspections
10) Adjusting
11) Curing
12) Closeout/Punchlist

9. Milestones: Include milestones indicated in Contract Documents in schedule, including, but not limited to, Notice to Proceed, Tension Crack Repairs, Substantial Completion and Final Acceptance.

C. Joint Review, Revision, and Acceptance:

1. Within seven calendar days of receiving Contractor's proposed Construction Baseline Schedule, Contracting Officer shall review initial Construction Baseline Schedule.
2. Within seven calendar days after review, Contractor shall revise and resubmit Construction Baseline Schedule in accordance with comments presented from review.
3. In the event the Contractor fails to define any element of work, activity, or logic, and the Contracting Officer review does not detect this omission or error, such omission or error, when discovered by Contractor or Contracting Officer, shall be corrected by Contractor within seven calendar days and shall not affect contract period.
4. Upon acceptance of the Construction Baseline Schedule, Contracting Officer saves schedule as a baseline and updates on a monthly basis. Construction schedule update will be used to evaluate Contractor's monthly applications for payment based upon information developed at monthly Construction Schedule update meeting.

D. Cost Correlation: In the heading of the schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of Work performed as of dates used to prepare payment requests.
1. Construction Contractor shall assign cost to construction activities on Construction Baseline Schedule. Costs shall not be assigned to submittal activities unless specified otherwise but may, with Contracting Officer’s approval, be assigned to fabrication and delivery activities. Costs shall be included for testing and commissioning activities, operation and maintenance

manuals, punch list activities, Project Record Documents, and demonstration and training (if applicable).

2. Each activity cost shall reflect an accurate value based on the Contract Price Schedule.
3. Total cost assigned to activities shall equal total Contract Price.

E. Recovery Schedule: When periodic schedule update indicates Work is 14 or more calendar days behind current accepted schedule, a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule shall also be submitted. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery shall be accomplished.

F. Computer Software: Prepare schedules using a program developed specifically to manage construction schedules.

1. Use latest version of Microsoft Project, Primavera, Project Planner, SureTrak.

PART 3 - EXECUTION

3.1 CONSTRUCTION SCHEDULE UPDATES

A. Progress Meeting Updates: Provide a two look-ahead schedule, derived from the currently accepted schedule, before each weekly progress meeting. Utilize look-ahead schedule to facilitate and take notes on discussions held during progress meeting.

B. Monthly Schedule Updates:

1. General: Update Construction Schedule on monthly basis to reflect construction progress and activities throughout entire contract period and until project substantial completion. The status date of each schedule update shall be the 7th day preceding the progress payment request date.
2. Procedure: Contractor shall meet with Contracting Officer each month at Construction Schedule update meeting to review progress made through the status date of the Construction Schedule update, including dates activities were started or completed and percentage of work completed on each activity started or completed.
3. Reports: Concurrent schedule revisions, prepare tabulated reports showing:

   a. Identification of activities that have changed
   b. Changes in early and late start dates
   c. Changes in early and late finish dates
   d. Changes in activity durations in workdays
   e. Changes in the critical path
   f. Changes in total float or slack time
   g. Changes in the Contract Time

4. Narrative: Report shall include a brief description of actual progress made during update period; actual and potential delaying activities; impediments to progress; issues related to inclement weather; progress toward established milestones and project float. Report shall include a brief description of work anticipated to be performed in the next month. Minor revisions to the schedule should be identified for evaluation and acceptance or rejection.

5. As Work progresses, indicate Actual Completion percentage for each activity.
6. If schedule update shows a late finish date after contract completion date, include:

    a. Known delays
    b. Actions to get back on schedule
    c. Pending modifications
    d. Impediments or constraints affecting progress

7. Progress Payments: Monthly updating of the currently accepted Construction Schedule shall be an integral part of the process upon which progress payments will be made. If Contractor fails to provide schedule updates or revisions, a portion of the monthly payment may be retained until corrections have been made.

C. Distribution: Distribute copies of accepted schedule to Contracting Officer, Contracting Officers Representative, Construction Management Representative, Subcontractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.

1. Post copies in Project meeting rooms and temporary field offices.
2. When revisions are made, distribute updated schedules to same parties and post in same locations. Delete parties from distribution when they have completed their assigned portion of the Work.

D. Construction Schedule Revisions:

1. Required Revisions: If, as a result of the monthly schedule update, it appears the currently accepted Construction Schedule no longer represents actual prosecution and progress of the work, Contracting Officer will request, and Construction Contractor shall submit, a revision to the Construction Schedule. Construction Contractor may also request reasonable revisions to currently accepted Construction Schedule in event the Construction Contractor's planning for the work is revised. If Construction Contractor desires to make changes, Construction Contractor shall notify Contracting Officer in writing, stating reason for proposed revision. Accepted revisions shall be incorporated into currently accepted Construction Schedule for next monthly schedule update.
2. Procedure: If revision to currently accepted Construction Schedule is contemplated, Construction Contractor or Contracting Officer shall advise the other in writing at least seven calendar days prior to next monthly schedule update meeting, describing revision and reasons for the revision. Government-requested revisions will be presented in writing to the Construction Contractor, who shall respond in writing within seven calendar days.
3. Reports: Concurrent with making revisions to schedule, prepare tabulated reports showing:

    a. Identification of activities changed
    b. Changes in early and late start dates
    c. Changes in early and late finish dates
    d. Changes in activity durations in workdays
    e. Changes in critical path
    f. Changes in total float or slack time

3.2 TIME IMPACT ANALYSIS FOR CONTRACT MODIFICATIONS CHANGES DELAYS AND CONTRACTOR REQUESTS:

1. Requirements: When contract modifications or changes are initiated, delays experienced, or Construction Contractor desires to revise currently accepted Construction Schedule, Construction Contractor shall submit to Contracting Officer a written time impact analysis illustrating the influence of modification, change, delay, or Construction Contractor request on contract time.
2. Time Extensions: Activity delays, resulting in a late completion date projection, shall not automatically mean an extension of contract time is warranted or due to Construction Contractor. It is possible a modification, change, or delay will not affect existing critical path activities or cause non-critical activities to become critical. A modification, change, or delay may result in absorbing a part of available total float that may exist within an activity chain of the Schedule, not causing any effect on contract time. Time extensions will be granted in accordance with terms of contract.
3. Extension of contract time will be granted only to the extent the equitable time adjustments to activity or activities affected by modification, change, or delay exceeds total (positive or zero) float available on a particular activity.
4. Procedure: Each time impact analysis shall be submitted within time period stated in a request for proposal, or time period designated under the clauses entitled Changes or Default. In cases where Construction Contractor does not submit a written request for extension of time and a time impact analysis within the designated time, it is mutually agreed that the particular modification, change, delay, or Construction Contractor request does not require an extension of the contract time. Upon acceptance, time impact analysis shall be incorporated into currently accepted Construction Schedule at next monthly schedule update.
5. Contract Modifications: Prepare time-impact analysis using fragnets to demonstrate effect of proposed change on overall Construction Schedule for each proposed contract modification concurrent with submission.

END OF SECTION 01 32 16

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 32 33 – PHOTO DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for:

1. Existing condition images of key areas included in this project
2. Establishment of Ten Photo Stations
3. Periodic construction images of key areas included in this project

B. See Section 01 77 00 "Closeout Procedures" for a complete listing of closeout documents.

1.2 SUBMITTALS

A. Submit the following to the Contracting Officer in accordance with requirements of Division 01 Section, "Submittal Procedure."

B. Product Data for Photo Stations.

C. Construction Images: Submit images electronically within seven days of taking the image. Include:

1. Date, time and number (sequentially number all images) in filename.
2. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
3. Submit digital images exactly as originally recorded in digital camera, without alteration, or modifications using image-editing software.

D. Closeout: Submit complete set of digital image electronic files as a Project Record Document**.** Submit on USB drive or electronically.

1. Provide index as separate file on Disc. List each image as a file name with number, date, and time. Include description and or vantage point image was taken.
2. Submit images that have the same aspect ratio as the sensor, un-cropped.

PART 2 - PRODUCTS

2.1 FORMAT REQUIREMENTS

A. Media: USB drive, SharePoint site or another approved electronic format.

B. Images: Provide sRGB (standard Red Green Blue) color images in JPEG (Joint Photographic Experts Group) format. Minimum sensor size of 8 megapixels, and at image resolution of not less than 3200 by 2400 and 300 dpi (dots per inch).

2.2 PHOTO STATIONS

A. Twenty (20) grade stakes: 30 in. long rebar (5/8 in. diameter) with a 2 ½" aluminum cap for rebar.

B. Ten (10) orange plastic caps imprinted with text (point ID).

C. Ten (10) pink plastic caps imprinted with text (cover pole).

D. White Marker Board (dry erase or similar) 9-inch by 12-Inch Handheld.

PART 3 - EXECUTION

3.1 CONSTRUCTION IMAGES

A. General: Take digital images using the maximum range of depth of field, in-focus, to clearly show the Work. No blurry or out-of-focus areas accepted.

1. Maintain index with each set of Construction images and identify the number, date, time, and description for each.
2. Maintain one set of images accessible in field office at Project site available for reference.

B. Existing Condition Images: Before commencement construction, take color digital images of Project site and surrounding properties, including existing items to remain during construction, from different vantage points.

1. Take a minimum of four separate images every 50 LF to show existing conditions of the gravel access road and parking lot (North of Awatixa Village – Sakakawea Site) and surrounding area before starting Work.
2. Take a minimum of four separate images to show existing conditions of the following structures and surrounding area before starting Work.

   a. Overhead electric poles north and south of construction access roads
   b. Culverts withing right of way of County Road 37

3. Take a minimum of four separate images every 200 LF to show existing conditions of County Road 37 pavement before starting Work.
4. Take a minimum of four separate images every 200 LF to show existing conditions of the proposed access route (from County Road 37 east to the Knife River crossing) before starting Work.
5. Take a minimum of four separate images every 200 LF to show existing conditions of the right and left bank conditions of the Knife River (Elbee Bend).

C. Periodic Construction Images: Take the following minimum color digital images weekly, with timing each month adjusted to coincide with cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last images were taken.

1. Ten showing right and left bank conditions of the Knife River.
2. Four along the gravel access road and parking lot (North of Awatixa Village – Sakakawea Site).
3. Four along the new access route (from County Road 37 east to the Knife River crossing).

D. Photo Station Images:

1. There are a minimum of 10 photo stations established throughout the project site to document construction progress and post construction monitoring.

    a. Install ten (10) grade stakes with orange florescent caps pounded in to expose two to three inches above ground. Orange florescent caps imprinted with text (point ID).
    b. Install (10) grade stakes located 5-10 yards from the photo point; to serve as a marker for where to place a cover pole (gives scale to the photo). Pink florescent caps imprinted with text (cover pole).
    c. Record GPS coordinates for each photo point location and cover pole location.

2. Prepare detailed directions for locating and taking the photo points.
3. Fill out the white marker board (dry erase or similar) with point number, date, and direction of the photo; and place it in an upright position so that it appears in either corner of the photo's foreground. The text should be large enough to be readable in the photograph.
4. Take a minimum of one photo per photo station monthly. Photos should be color, digital images. Select vantage points to show status of construction and progress since last images were taken.

E. Additional Images: Contracting Officer may issue requests for additional images.

1. Three days advance, where feasible.
2. In emergency situations, take additional images within 24 hours of request.
3. Additional images include, but are not limited to:

    a. Immediate follow-up when on-site events result in construction damage or losses.
    b. Fabrication locations away from Project site.
    c. Substantial Completion of a major phase or component of Work.
    d. Extra record images at time of final acceptance.

END OF SECTION 01 32 33

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 33 23 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

B. The Contractor shall only be responsible for those submittals that are relevant to the portion of work he is awarded. If the Contractor is not awarded the Bid Alternate Items, those submittals shall not be required.

1.2 DEFINITIONS

A. Action Submittals: Written, graphic information, and physical samples that require Government's responsive action.

B. Informational Submittals: Written information that does not require Government's responsive action. Submittals may be rejected for not complying with requirements.

C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.

D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.3 GENERAL SUBMITTAL PROCEDURES

A. General: Prepare and submit submittals required by individual Specification Sections and in some cases as requested in drawings. Types of submittals are indicated in individual specific sections.

1. Contracting Officer reserves right to require submittals in addition to those called for in individual sections.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Review for legibility, accuracy, completeness, and compliance with Contract Documents.

1. Coordinate submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.

2. Coordinate transmittal of different types of submittals for related parts of Work so processing will not be delayed because of need for concurrent review coordination.

    a. Contracting Officer reserves right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

C. Submittal List: Submittal list is attached to the end of this Specification Section. The intent is to provide an overall summary of submittal requirements. The requirements of individual Specification Sections and terms and conditions of the Contract still apply regardless of what is shown on submittal list.

D. Processing Time: Allow time for submittal review, including time for re-submittals, as follows. Time for review shall commence when e-mail notification is received by Contracting Officer (or designee) indicating submittal has been posted on NPS management software website and is ready for review. When Contracting Officer has completed review, e-mail notification will be sent to Contractor indicating submittal has been processed. No extension of Contract Time will be authorized because of failure to transmit submittals in advance of Work to permit processing, including re-submittals.

1. Action Submittals

    a. Initial Review: Allow 30 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required.
    b. Re-submittal Review: Allow 14 days for review of each re-submittal.

2. Informational submittals

    a. Review: Allow 10 days for review of each submittal.

E. Approved Equals:

1. For each item proposed as an "approved equal," submit supporting data, including:

    a. Drawings and samples as appropriate.
    b. Comparison of the characteristics of the proposed item with that specified.
    c. Changes required in other elements of the work because of the substitution.
    d. Name, address, and telephone number of vendor.
    e. Manufacturer’s literature regarding installation, operation, and maintenance, Describe availability of maintenance service, and state source of replacement materials.

2. A request for approval constitutes a representation that Contractor:

    a. Has investigated the proposed item and determined that it is equal or superior in all respects to that specified.
    b. Will provide the same warranties for the proposed item as for the item specified.
    c. Has determined that the proposed item is compatible with interfacing items.
    d. Will coordinate installation of an approved item and make changes required in other elements of the work because of the substitution.
    e. Waives claims for additional expenses that may be incurred as a result of the substitution.

F. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:

1. Transmittal Form (CM-16): All submittals shall be transmitted using National Park Service Transmittal Form (CM-16). The form can be downloaded from the DSC Workflows website's Submittal Review page and completed on the NPS/DSC management software website. No action will be taken on a submittal item unless accompanied by this Transmittal Form.

   a. Complete the general information at the top of form.
   b. Provide all required information based on submittal type
   c. Attach all related documents.
   d. Sign the Contractor section at bottom of the Transmittal Form (CM-16).

2. Physical samples: Complete Transmittal Form (CM-16) on the NPS/DSC management software website as described above. Deliver physical sample to the Contracting Officer (or designee) on site for processing. All comments and actions will be documented on the Transmittal Form (CM-16) on the NPS/DSC management software website.

G. Identification: Submittal number or other unique identifier, including revision identifier.

1. Submittal number shall use a sequential number (e.g. .001). Re-submittals shall include alphabetic suffix after another decimal point (e.g. .001.A).

H. Re-submittals: Make re-submittals using same process used with initial submittal.

1. Note date and content of previous submittal.
2. Note date and content of revision in the title block on the Transmittal Form (CM-16) and clearly indicate extent of revision.
3. Re-submit submittals until they are marked "Approved" or "Approved with notations".

I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, and others as necessary for performance of construction activities.

J. Use for Construction: Use only final submittals with mark indicating "Approved" or "Approved with notations". Ensure notations have been incorporated and, at a minimum, keep one copy of final approved submittal on site for use during construction.

1.4 CONTRACTOR'S USE OF CAD FILES

A. General: At Contractor's written request, copies of CAD (Computer Aided Design) will be provided to Contractor for Contractor's use in connection with Project, subject to:

1. Files provided as is; no format or other changes to files or changes to objects in the drawing will be done by the Government
2. The contractor acknowledges that the CAD files are representational of the design intent for the project and are not presented or warranted to be accurate.
3. Use of the CAD files is not defense for failure to conform with the requirements of the contract documents.
4. Reliance on dimensional or other information contained or inherent in the CAD files is at the Contractor's sole risk.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
2. Mark each submittal to show which products and options are applicable.
3. As applicable, include:

a. Manufacturer's product specifications.
b. Manufacturer's installation instructions: When Contract Documents require compliance with manufacturer's printed instructions, provide one complete set of instructions to Contracting Officer and keep another complete set of instructions at the project site until substantial completion.
c. Manufacturer's catalog cuts: Submit only pertinent pages; mark each page of standard printed data to identify specific products proposed for use.
d. Printed performance curves.
e. Operational range diagrams.
f. Compliance with specified referenced standards.
g. Testing by recognized testing agency.

4. Submit product data in PDF (portable document format) file format before or concurrent with samples.

B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Preparation: Fully illustrate requirements in Contract Documents. As applicable, include:

a. Dimensions
b. Identification of products
c. Fabrication and installation drawings
d. Shopwork manufacturing instructions
e. Templates and patterns
f. Schedules
g. Notation of coordination requirements
h. Notation of dimensions established by field measurement
i. Relationship to adjoining construction clearly indicated
j. Seal and signature of professional engineer if specified

2. Submit shop drawings as PDF electronic file.

C. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.

1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
2. Complete and post the Transmittal Form (CM-16) on the NPS/DSC management software website for processing and documentation of action on submitted samples.
3. Identification: Attach label on unexposed side of Samples that includes:

    a. Generic description of Sample
    b. Product name and name of manufacturer
    c. Sample source
    d. Submittal Number and title of appropriate Specification Section

4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing full range of colors, textures, and patterns available.

    a. Number of Samples: Submit two full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Contracting Officer will return with options selected.

6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.

    a. Number of Samples: Submit four sets of Samples. Contracting Officer will retain three Sample sets; remainder will be returned.

D. Contractor is encouraged to submit products made out of recycled or environmentally responsible material. Every effort will be made by National Park Service to approve these materials.

2.2 INFORMATIONAL SUBMITTALS

A. General: Prepare and submit Informational Submittals required by individual Specification Sections.

1. Post informational submittals as PDF electronic files directly to the NPS management software website.
2. Certificates and Certifications: Provide a notarized statement with signature of entity responsible for preparing certification. Certificates and certifications shall be signed by officer or other individual authorized to sign documents on behalf of that entity.
3. Informational submittals that do not comply with requirements specified in Contract Documents will be rejected and one copy will be returned.

B. Coordination Drawings: Comply with requirements specified in Section 01 31 00 "Project Management and Coordination."

C. Contractors Construction Schedule: Comply with requirements specified in Section 01 32 16 "Construction Schedule."

D. Accident Prevention Plan: Comply with requirements specified in Section 01 35 23 "Safety Requirements."

E. Schedule of Values: Comply with requirements specified in Section 01 32 16 "Construction Schedule."

F. Waste Recycling Plan: Comply with requirements specified in Section 01 74 19 "Construction Waste Management and Disposal."

G. Quality Control Plan: Comply with requirements specified in Section 01 40 00 "Quality Requirements."

H. Storm Water Pollution Prevention Plan: Comply with requirements specified in Section 01 57 23 "Temporary Storm Water Pollution Prevention" and storm water permit requirements identified in Section 01 31 00 "Project Management and Coordination."

I. Qualification Data: Prepare written information demonstrating capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

J. Welding Certificates: Prepare written certification that welding procedures and personnel comply with Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on American Welding Society (AWS) forms. Include names of firms and personnel certified.

K. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying Installer complies with Contract Documents and, where required, is authorized by manufacturer for this specific Project.

L. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying manufacturer complies with Contract Documents. Include evidence of manufacturing experience where required.

M. Product Certificates: Prepare written statements on manufacturer's letterhead certifying product complies with Contract Documents.

N. Material Certificates: Prepare written statements on manufacturer's letterhead certifying material complies with Contract Documents.

O. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in Contract Documents.

P. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

Q. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project.

R. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in Contract Documents.

S. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

T. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in Contract Documents.

U. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Section 01 77 00 "Closeout Procedures."

V. Design Data: Prepare written and graphic information, including: performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

W. Manufacturer's Instructions: Prepare written or published information documenting manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer.

X. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. As applicable, include:

1. Statement on condition of substrates and their acceptability for installation of product.
2. Summary of installation procedures being followed, compliance with requirements and, if not, what corrective action was taken.
3. Results of operational and other tests and a statement of whether observed performance complies with the requirements.

Y. Permit Compliance Products: Prepare required information for compliance with permit provisions. Products include written notification of project startup, suspension, and completion of work; photo documentation of site conditions; reports; and drawings.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

A. Review each submittal and check for coordination with other Work of Contract and for compliance with Contract Documents. Note corrections and field dimensions.

3.2 CONTRACTING OFFICER'S ACTION

A. General: Submittals will be disapproved without technical review if identification information is missing, not filled in, or if placed on back of submittal; an incorrect format of submittals is provided; transmittal form is incorrectly filled out; submittals are not coordinated; or submittals do not show evidence of Contractor's approval.

1. Any work done or orders for materials or services placed before approval shall be at Contractor's own risk.

B. Action Submittals: Contracting Officer will review each submittal, generate comments on corrections or modifications required, and indicate appropriate action on the Transmittal Form (CM-16). Submittal will be marked as defined below:

1. APPROVED: Acceptable with no corrections.
2. APPROVED WITH NOTATIONS: Minor corrections or clarifications required. Comments are clear and no further review is required. Contractor shall address review comments when proceeding with the work.
3. DISAPPROVED - RESUBMIT: Rejected as not in accordance with the contract or as requiring major corrections or clarifications. Contracting Officer will identify reasons for disapproval. Contractor shall revise and resubmit with changes clearly identified.

C. Informational Submittals: Contracting Officer will review each submittal and will either accept or reject it.

D. Partial submittals are not acceptable, will be considered non-responsive, and will be returned without review.

END OF SECTION 01 33 23

Submittal List with Review Estimate

National Park Service (NPS) - Denver Service Center (DSC) | 1-27-21

SUBMITTAL LIST

Park Acronym/Project Management Information System (PMIS) Number: **KNRI 257081**

Project Title: **Knife River Elbee Bend Bank Stabilization**

ACTION SUBMITTAL REVIEW ESTIMATE

(Complete this portion for Architect / Engineer (A/E) construction service task order negotiation.)

SUBMITTAL			REQUIREMENTS (Indicate with **X**)								ARCHITECT / ENGINEER REVIEW TIME (Indicate in whole or partial hours.)							
			INFORMATIONAL				ACTION											
SPECIFICATION SECTION	PARAGRAPH NUMBER	DESCRIPTION	CERTIFICATIONS OR LABORATORY TESTS	REPORTS OR CALCULATIONS OR PLAN	MANUFACTURER DATA AND INSTRUCTIONS	OTHER	SAMPLES	SHOP DRAWINGS	MANUFACTURER DATA AND INSTRUCTIONS	OTHER		ARCHITECT	CIVIL ENGINEER	STRUCTURAL ENGINEER	MECHANICAL ENGINEER	ELECTRICAL ENGINEER	PROJECT MANAGER COORDINATION	LANDSCAPE ARCHITECT
01 31 00	1.4	Letter Designating Project Superintendent				X												
01 31 00	1.4	Construction Schedule		X														
01 31 00	1.4	A Comprehensive Schedule of Values				X												
01 31 00	1.4	Accident Prevention Plan		X														
01 31 00	1.4	A List of Subcontractors for this Project				X												
01 31 00	1.4	Written statements from Subcontractors certifying compliance with applicable labor standard clauses	X															
01 31 00	1.4	Certificates of Insurance and Standard Form SF1413 for Contractor and all Subcontractors	X															
01 31 00	1.4	Waste Management Plan		X														
01 31 00	1.4	Quality Control Plan		X														
01 31 00	1.4	Construction Storm Water Pollution Prevention Plan		X														
01 57 23	2.1	*Second Reference of Above*		X														
01 31 00	1.4	Historic Preservation Treatment Plan (HPTP)		X														
01 35 91	1.3	*Second Reference of Above*																
01 31 00	1.4	List of Required Construction Permits				X												
01 32 16	1.3	Electronic Copies				X												
01 32 16	1.3	Schedule of Values				X												
01 33 23	2.2	*Second Reference of Above*				X												
01 32 16	1.3	Construction Baseline Schedule		X														
01 33 23	2.2	*Second Reference of Above*				X												
01 32 16	1.3	Critical Path Method (CPM) Reports				X												
01 32 16	1.3	Construction Schedule Updates				X												
01 32 16	1.3	Construction Schedule Revisions and Time Impact Analysis				X												
01 32 33	1.2	Product Data for Photo Stations			X													
01 32 33	1.2	Construction Images (or Videos)				X												

SUBMITTAL LIST

Park Acronym/Project Management Information System (PMIS) Number: KNRI 257081

Project Title: Knife River Elbee Bend Bank Stabilization

ACTION SUBMITTAL REVIEW ESTIMATE

(Complete this portion for Architect / Engineer (A/E) construction service task order negotiation.)

SUBMITTAL			REQUIREMENTS (Indicate with **X**)								ARCHITECT / ENGINEER REVIEW TIME (Indicate in whole or partial hours.)							
			INFORMATIONAL				ACTION											
SPECIFICATION SECTION	PARAGRAPH NUMBER	DESCRIPTION	CERTIFICATIONS OR LABORATORY TESTS	REPORTS OR CALCULATIONS OR PLAN	MANUFACTURER DATA AND INSTRUCTIONS	OTHER	SAMPLES	SHOP DRAWINGS	MANUFACTURER DATA AND INSTRUCTIONS	OTHER		ARCHITECT	CIVIL ENGINEER	STRUCTURAL ENGINEER	MECHANICAL ENGINEER	ELECTRICAL ENGINEER	PROJECT MANAGER COORDINATION	LANDSCAPE ARCHITECT
01 35 91	1.3	*Second Reference of Above*				X												
01 32 33	1.2	Closeout				X												
01 33 23	2.1	Product Data							X									
01 33 23	2.1	Shop Drawings						X										
01 33 23	2.1	Samples					X											
01 33 23	2.2	Qualification Data				X												
01 33 23	2.2	Welding Certificates	X															
01 33 23	2.2	Installer Certificates	X															
01 33 23	2.2	Manufacturer Certificates	X															
01 33 23	2.2	Product Certificates	X															
01 33 23	2.2	Material Certificates	X															
01 33 23	2.2	Material Test Reports		X														
01 33 23	2.2	Product Test Reports		X														
01 33 23	2.2	Research/Evaluation Reports		X														
01 33 23	2.2	Preconstruction Test Reports		X														
01 33 23	2.2	Compatibility Test Reports		X														
01 33 23	2.2	Field Test Reports		X														
01 33 23	2.2	Maintenance Data				X												
01 33 23	2.2	Design Data				X												
01 33 23	2.2	Manufacturer's Instructions			X													
01 33 23	2.2	Manufacturer's Field Reports			X													
01 33 23	2.2	Permit Compliance Products				X												
01 35 13.22	1.3	Daily Work Schedule - Archeologically Sensitive Areas		X														
01 35 23	1.2	Accident Prevention Plan (APP)		X														
01 33 23	2.2	*Second Reference of Above*		X														
01 35 91	1.3	Alternative Methods and Materials				X												
01 40 00	1.4	Quality Control Plan		X														
01 33 23	2.2	*Second Reference of Above*																
01 40 00	1.4	Qualification Data				X												

SUBMITTAL LIST

Park Acronym/Project Management Information System (PMIS) Number: KNRI 257081

Project Title: Knife River Elbee Bend Bank Stabilization

ACTION SUBMITTAL REVIEW ESTIMATE

(Complete this portion for Architect / Engineer (A/E) construction service task order negotiation.)

SUBMITTAL			REQUIREMENTS (Indicate with **X**)								ARCHITECT / ENGINEER REVIEW TIME (Indicate in whole or partial hours.)							
			INFORMATIONAL				ACTION											
SPECIFICATION SECTION	PARAGRAPH NUMBER	DESCRIPTION	CERTIFICATIONS OR LABORATORY TESTS	REPORTS OR CALCULATIONS OR PLAN	MANUFACTURER DATA AND INSTRUCTIONS	OTHER	SAMPLES	SHOP DRAWINGS	MANUFACTURER DATA AND INSTRUCTIONS	OTHER		ARCHITECT	CIVIL ENGINEER	STRUCTURAL ENGINEER	MECHANICAL ENGINEER	ELECTRICAL ENGINEER	PROJECT MANAGER COORDINATION	LANDSCAPE ARCHITECT
01 74 19	1.4	*Second Reference of Above*				X												
01 40 00	1.4	Contractor Quality Control (CQC) Daily Reports				X												
01 40 00	1.4	Test Reports		X														
01 40 00	1.4	Accessibility Inspection Report		X														
01 40 00	1.4	Off-Site Inspection Reports		X														
01 50 00	1.6	ND Game and Fish ANS Inspection Checklist(s)		x						x								
01 57 23	1.3	Storm Water Pollution Prevention Plan		X														
01 33 23	2.2	*Second Reference of Above*		X														
01 57 23	1.3	SWPPP Inspection Schedule		X														
01 57 23	1.3	Erosion Control Products			X													
01 67 00	1.3	Affirmative Procurement Reporting Form				X												
01 67 00	1.3	Environmental Data of Products			X													
01 67 00	1.3	MSDS for Materials used on Project			X													
01 67 00	1.3	Chain of Custody Materials used on Project			X													
01 73 40	1.2	Location and Elevation Certificate Signed by Professional Engineer		X														
01 73 40	1.2	Landfill Receipts				X												
01 73 40	1.2	Certified Surveys				X												
01 73 40	1.2	Quantity Surveys				X												
01 74 19	1.4	Waste Management/Recycling Plan		X														
01 33 23	2.2	*Second Reference of Above*																
01 74 19	1.4	Progress Documentation				X												
01 74 19	1.4	Waste Reduction Calculations		X														
01 74 19	1.4	Records of Donations				X												
01 74 19	1.4	Records of Sales				X												
01 74 19	1.4	Recycling and Processing Facility Records				X												
01 74 19	1.4	Landfill and Incinerator Disposal Records				X												
01 74 19	1.4	Statement of Refrigerant Recovery				X												
01 74 19	1.4	Progress Payment Requirements				X												

SUBMITTAL LIST

Park Acronym/Project Management Information System (PMIS) Number: **KNRI 257081**

Project Title: **Knife River Elbee Bend Bank Stabilization**

ACTION SUBMITTAL REVIEW ESTIMATE

(Complete this portion for Architect / Engineer (A/E) construction service task order negotiation.)

SUBMITTAL			REQUIREMENTS (Indicate with **X**)								ARCHITECT / ENGINEER REVIEW TIME (Indicate in whole or partial hours.)							
			INFORMATIONAL				ACTION											
SPECIFICATION SECTION	PARAGRAPH NUMBER	DESCRIPTION	CERTIFICATIONS OR LABORATORY TESTS	REPORTS OR CALCULATIONS OR PLAN	MANUFACTURER DATA AND INSTRUCTIONS	OTHER	SAMPLES	SHOP DRAWINGS	MANUFACTURER DATA AND INSTRUCTIONS	OTHER		ARCHITECT	CIVIL ENGINEER	STRUCTURAL ENGINEER	MECHANICAL ENGINEER	ELECTRICAL ENGINEER	PROJECT MANAGER COORDINATION	LANDSCAPE ARCHITECT
01 74 19	1.4	Closeout Submittals				X												
01 77 00	1.3	Warranties, guarantees, Workmanship Bonds, Final Certifications, and Similar Documents	X															
01 77 00	1.3	Project Record Documents, operation and maintenance manuals, final completion construction digitall images	X															
01 77 00	1.3	Environmental Record Documents				X												
31 22 16.15	1.4	Certified laboratory test certificates	X															
31 22 16.15	1.4	Manufacturer product data			X													
31 22 16.15	1.5	Product Data			X													
31 23 00	1.5	Material Test Reports	X															
31 23 00	1.5	Classification (ASTM D 2487) of each on-site or borrow soil material proposed for fill and backfill	X															
31 23 19.01	1.2	Water control plan and Dewatering Systems		X														
31 23 19.01	1.1	Discharge permits				X												
31 23 19.01	1.1	Discharge permit reporting requirements		X														
31 25 00	1.3	Product data for all materials			X													
31 25 00	1.3	Erosion and Sediment Control Plan and schedule		X														
31 25 00	1.3	construction sequencing plan and schedule		X														
31 25 00	1.3	Insepction Reports		X														
31 25 00	1.3	Construction Storm Water Operator Qualifications	X															
31 25 00	1.3	Contact information for Named Responsible Party/Storm Water Operator				X												
31 50 00	1.4	Shop Drawings						X										
31 50 00	1.4	Qualification Data for Professional Engineer for excavation support and protection systems	X															
31 50 00	1.4	Photographs or video				X												
31 50 00	1.4	Utility Locates				X												
31 37 00	1.4	Stone Data (prior to installation)	X															
31 37 00	1.4	Stone Field Samples (prior to installation)					X											

SUBMITTAL LIST

Park Acronym/Project Management Information System (PMIS) Number: **KNRI 257081**

Project Title: **Knife River Elbee Bend Bank Stabilization**

ACTION SUBMITTAL REVIEW ESTIMATE

(Complete this portion for Architect / Engineer (A/E) construction service task order negotiation.)

SUBMITTAL			REQUIREMENTS (Indicate with **X**)								ARCHITECT / ENGINEER REVIEW TIME (Indicate in whole or partial hours.)							
			INFORMATIONAL				ACTION											
SPECIFICATION SECTION	PARAGRAPH NUMBER	DESCRIPTION	CERTIFICATIONS OR LABORATORY TESTS	REPORTS OR CALCULATIONS OR PLAN	MANUFACTURER DATA AND INSTRUCTIONS	OTHER	SAMPLES	SHOP DRAWINGS	MANUFACTURER DATA AND INSTRUCTIONS	OTHER		ARCHITECT	CIVIL ENGINEER	STRUCTURAL ENGINEER	MECHANICAL ENGINEER	ELECTRICAL ENGINEER	PROJECT MANAGER COORDINATION	LANDSCAPE ARCHITECT
31 37 00	1.4	Bedding Aggregate Samples (prior to installation - three types)					X											
31 37 00	1.4	Bedding Aggregate Test Results and certification of complance (prior to installation - three types)	X															
32 92 19	1.4	Product Data (Fertilizer)			X													
32 92 19	1.4	Product Data (Mulch)			X													
32 92 19	1.4	Product Data (Herbicides and Pesticides)			X													
32 92 19	1.4	Mowing and Watering Schedule/Plan		X														
32 92 19	1.4	Weed Control Schedule/Plan		X														
32 92 19	1.4	Certification of Grass Seed	X															
32 92 19	1.4	Seed Mix (Temp, Upland and Wetland)	X															
32 92 19	1.4	Weed Free Certification for Straw Mulch	X				X											
32 92 19	1.5	Qualification Statements: For landscape Installer	X															
32 92 19	1.5	Product Certificates	X															
32 92 19	1.5	Sample Warranty				X												
32 92 19	1.6	Maintenance Data			X													
32 91 13	1.4	Certified Topsoil Analysis Reports	X															
32 91 13	1.4	Imported material testing	X															

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 35 13.22 – ARCHEOLOGICAL PROTECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section consists of protecting archeological resources contained in soil deposits.

B. The Contractor shall refer to the 2025 Archeological Protection Plan which is included with the Contract Documents for additional information and requirements related to protection of archeological resources.

C. The Midwest Archeological Center (MWAC), working through the NPS, will serve as the contact for archeological expertise for this project.

D. During excavation work of the tension crack areas of the cutbank, MWAC will visually monitor and investigate/selectively screen the backfill. After the areas with tension cracks are removed the Contractor will give MWAC up to two weeks to conduct a visual survey and salvage excavation if necessary, using a boom lift. During that time, the Contractor will not perform any more excavation on the cutbank but may work in other areas.

E. If desired by Associated Tribes, all ground disturbance shall have oversight by a Tribal Monitor. Tribal Monitoring, conducted by Traditional Cultural Specialists (TCSs), is managed separately from the Contractor's Construction Contract. The Contractor is responsible solely for coordinating schedules as required with the COR.

1.2 DEFINITIONS

A. Archeological Resources: Physical evidences of past human activity, including evidences of effects of that activity on the environment. Archeological resources represent both prehistoric and historic time periods, found above and below ground and under water.

B. Archeologically Sensitive Areas: Areas having potential to contain significant (National Register eligible) archeological resources. If National Register eligible or listed archeological resources could not be avoided, an appropriate mitigation strategy would be developed in consultation with state historic preservation officer and associated American Indian tribes.

C. Non-sensitive Areas: Areas with little potential of containing significant (National Register eligible) archeological resources.

D. Midwest Archeological Center (MWAC): Representative of Government designated to oversee construction activities that could disturb archeological resources.

E. Archeological Resources Protection Act (ARPA) of 1979 (Public Law (P.L.) 96-95; 93 United States Statues at Large (Stat.) 712): defines archeological resources as any material remains of past human life or activities that are of archeological interest and at least 100 years old; Section 4 of the statute describes the requirements that must be met before Federal authorities can issue a permit to excavate or remove any archeological resource on Federal or Indian lands; the curatorial requirements of artifacts, and other materials excavated or removed.

1.3 SUBMITTALS

A. Daily Work Schedule: Detail construction work in archeologically sensitive areas. Submit to Contracting Officer 30 days before start of ground disturbing site work.

1.4 QUALITY ASSURANCE

A. At least two weeks before on-site work begins, Contractor shall meet with Contracting Officer and the MWAC to discuss Daily Work Schedule, equipment, and special methods used in archeologically sensitive areas. Contractor shall ensure approved Daily Work Schedule is followed throughout construction.

PART 2 - PRODUCTS

2.1 DAILY WORK SCHEDULE

A. Daily Work Schedule is required for work occurring within archeologically sensitive areas. Include all work that is to occur within the area and key the schedule to the drawings to include:

1. Starting and ending dates of ground-disturbing construction.
2. Locations of temporary facilities, such as barriers, field offices, staging areas, sanitary facilities, borrow pits, and haul and access roads.
3. Types of construction, such as clearing, topsoil stripping, structure or trench excavation, landscaping, and post construction clean-up.
4. Methods and equipment used for each type of construction.
5. Plan for relocating work in the event of temporary work stoppages at each archeologically sensitive area.

PART 3 - EXECUTION

3.1 BARRICADES

A. Comply with requirements specified in Section 01 50 00 "Temporary Facilities and Controls."

3.2 OBSERVATION

A. MWAC will observe ground-disturbing work, including construction of temporary facilities, at archeologically sensitive areas, from a safe location mutually agreed on by Contractor and MWAC. As new ground is broken, MWAC will examine excavated materials, using construction layout centerline and perimeter staking as a reference to record locations of findings.

3.3 DISCOVERY OF RESOURCES

A. If MWAC discovers resources, immediate relocation of work to a non-sensitive area may be required for MWAC to identify and document resources and, if necessary, develop appropriate mitigation plan. While MWAC is documenting resources in sensitive areas, Contractor shall relocate work to non-sensitive areas where monitoring is not normally required.

B. If resources are discovered while MWAC is absent, stop work immediately and report the discovery to the Contracting Officer.

3.4 WORK STOPPAGE

A. Contractor shall plan, schedule, and execute work to prevent stoppages at one area from stopping all work at construction site.

END OF SECTION 01 35 13.22

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 35 23 - SAFETY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes establishing an effective accident prevention program and providing a safe working environment for personnel and visitors.

1.2 SUBMITTALS

A. Accident Prevention Plan (APP): Submit APP after contract award and before Pre-Construction conference. Contracting Officer (CO) will review proposed APP. If APP requires any revisions or corrections, Contractor shall resubmit Plan within 10 days. No progress payments will be made until the APP is accepted.

1.3 QUALITY ASSURANCE

A. Comply with contract clauses "Accident Prevention" and "Permits and Responsibilities." In case of conflicts between Federal, State, and local safety and health requirements, the most stringent shall apply. Onsite equipment shall meet 29 CFR 1926 (Code of Federal Regulations) (Occupational Safety and Health Administration (OSHA)) requirements. Failure to comply with requirements of this section and related sections may result in suspension of work.

B. Site Safety Supervisor:

1. Designate authorized onsite representative for preparation and maintenance of the APP.
2. Shall be responsible for:

    a. Implementation and enforcement of the APP
    b. Daily safety inspections
    c. Conducting and documenting weekly and monthly safety meetings
    d. Review of safety requirements at progress meetings
    e. Compilation and maintenance of Safety Data Sheets (SDS) and safety reference materials
    f. Tracking and resolution of safety violations
    g. Site personnel and visitor compliance with site safety and health requirements and APP
    h. Investigation and reporting of accidents and injuries

C. Qualifications of Employees:

1. Physically and able to perform their assigned duties in a safe manner.
2. Do not allow employees whose ability or alertness is impaired because of prescription or illegal drug use, fatigue, illness, intoxication, or other conditions that may expose themselves or others to injury to perform work.

3. Provide operating instructions for equipment. Operators of vehicles, hoisting equipment, and hazardous plant equipment shall be able to understand signs, signals, operating instructions, and be fully capable of operating such equipment. Retain copies of operator licenses and certifications onsite.

1.4 ACCIDENT REPORTING

A. Reportable Accidents: Defined as: death, occupational disease, and/or traumatic injury to employees or the public; fires; and/or property damage by accident in excess of $100.

1. Notify Contracting Officer immediately in the event of a reportable accident.
2. Fill out and forward an Accident/Property Damage Report Form (CM-22) to Contracting Officer within 7 days of a reportable accident. Obtain form from Contracting Officer.

1.5 RESOURCES

A. COVID-19 (Coronavirus Disease 2019) information provided below is not intended to provide a complete analysis of requirements for Contractor and is provided as a courtesy.
1. Coronoavirus.gov
2. Occupational Safety and Health Administration (United States Department of Labor) -COVID-19
3. Center for Disease Control (CDC)
   a. Get the Facts About Coronavirus
   b. What Construction Workers Need to Know about COVID-19
4. Federal Emergency Management Agency (FEMA) - Coronavirus (COVID-19) Response
5. National Park Service (NPS) - NPS Public Health Update

PART 2 - PRODUCTS

2.1 ACCIDENT PREVENTION PLAN (APP)

A. APP shall be written to comply with OSHA and project requirements (generic plan is not acceptable) including but not limited to:

1. Name and qualifications of supervisor responsible to carry out program.
2. Weekly and monthly safety meetings shall be documented with topics and attendees.
3. First aid and rescue procedures.
4. Job Hazard Analysis (JHA) for each major phase. List of hazards associated and methods proposed to provide for property protection and safety of the public, National Park Service personnel, and Contractor's employees. Include initial and continuing training.
5. Planning for possible emergency situations, as detailed in Article 1.2. Such planning shall take nature of construction, site conditions, and degree of exposure of persons and property into consideration.
6. Infectious Disease Preparedness:

   a. Contractors are responsible for their employees' safety and the safety of job site visitors during the performance of this contract. We encourage Contractors to follow

guidance from the Department of Labor (DOL), Occupational Safety and Health Administration (OSHA), the Centers for Disease Control and Prevention (CDC), and all other applicable local, city, and state mandates. We encourage Contractors to develop policies for infection prevention and an Infectious Disease Preparedness and Response Plan.

b. To the extent appropriate, Contractors should include the protective health and safety measures they intend to implement in any accident prevention or safety submittals required under this contract. These plans should contain preventive measures the Contractor intends to follow while performing work on government property as well as responsive and corrective actions to be taken if an employee exhibits symptoms or tests positive for contagion.

c. Upon contract award, Contractors should communicate with Contracting Officer regarding Contractor decisions and actions to protect the health and safety of workers for the duration of contract performance under which pandemic conditions exist.

2.2 FIRST AID FACILITIES

A. Provide adequate facilities for number of employees and appropriate to construction hazards.

2.3 PERSONNEL PROTECTIVE EQUIPMENT (PPE)

A. Selection shall conform to OSHA Subpart E.

PART 3 - EXECUTION

3.1 DAILY SAFETY INSPECTIONS

A. Conduct daily safety inspections and maintain daily safety reports which include:
   1. Area/operation inspected
   2. Date of inspection
   3. Identified hazards
   4. Corrective actions taken

3.2 EMERGENCY INSTRUCTIONS

A. Post telephone numbers and reporting instructions for ambulance, physician, hospital, fire department, and police in conspicuous locations at work site.

3.3 FIRE AND LIFE SAFETY

A. Comply with requirements of 2024 International Fire Code (IFC) Chapter 33 (Minimum safeguards for construction, alteration and demolition operations to provide reasonable safety to life and property from fire during such operations.).

B. Smoking Areas shall be designated by the contractor and approved by the Contracting Officer. The Contractor shall review where the designated smoking areas are with field staff and shall enforce

usage in only those locations. Disposal for ash and buts shall be contained in a fire arresting container.

3.4 HAZARDOUS MATERIALS

A. Hazardous materials: Explosive, flammable, poisonous, corrosive, oxidizing, irritating, or otherwise harmful substances that could cause death or injury.

B. Store hazardous materials in accordance with manufacturer's and OSHA Subpart D requirements. Maintain Safety Data Sheets (SDS) for each chemical readily available on site.

1. Immediately report spills of hazardous materials to the Contracting Officer.
2. Maintain a spill emergency response kit.
3. Train employees how to respond to a spill and use emergency response kit.

3.5 PROTECTIVE EQUIPMENT

A. Inspect personal protective equipment daily and maintain in a serviceable condition. Clean, sanitize, and repair personal items as appropriate before issuing to another individual.

B. Employees working over or near water, where the danger of drowning exists, shall be provided with U.S. Coast Guard-approved life jacket or buoyant work vests. Ring buoys with at least 90 feet of line shall be provided and readily available for emergency rescue operations. Distance between ring buoys shall not exceed 200 feet. At least one lifesaving skiff shall be immediately available at locations where employees are working over or adjacent to water.

3.6 SAFETY MEETINGS

A. As a minimum, conduct one weekly 15-minute "toolbox" safety meeting conducted by a foreman or supervisor and attended by construction personnel at worksite. Topics shall coincide with work scheduled for following week. Document and submit meeting minutes to Contracting Officer within one day after meeting.

B. Conduct monthly safety meetings for personnel, contractors, and subcontractors performing work on the site. Notify Contracting Officer of meeting dates and times. Meetings shall be used to: review effectiveness of Contractor's safety effort; resolve current health and safety problems; provide a forum for planning safe construction activities, and for updating Accident Prevention Plan. Contracting Officers Representative will attend meetings and enter results of meetings into the daily log.

3.7 HARD HATS AND PROTECTIVE EQUIPMENT AREAS

A. A hard hat use area shall be designated by Contractor. Hard hat area shall be posted by Contractor in a manner satisfactory to Contracting Officer.

B. It is Contractor's responsibility to require persons working on or visiting site to wear hard hats and PPE in good repair at all times. As a minimum, maintain onsite six hard hats and other APP required equipment.

3.8 TRAINING

A. First Aid: Provide training to personnel to ensure prompt and efficient first aid.
B. Hazardous Material: Train and instruct each employee exposed to hazardous material in safe and approved methods of handling and storage.

END OF SECTION 01 35 23

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 35 91 - HISTORIC PRESERVATION TREATMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes special procedures for historic treatment on Project including, but not limited to:

1. Definitions
2. Submittals
3. Quality Assurance
4. Storage and protection of existing historic materials
5. Project site conditions
6. Historic Preservation Treatment Plan
7. Protection, General
8. Protection during application of chemicals
9. Protection during use of heat-generating equipment
10. Historic preservation treatment procedures

B. Related Sections:
1. Section 01 35 13.22 - Archeological Protection
2. Section 01 32 33 - Photographic Documentation
3. Section 01 50 00 - Temporary Facilities and Controls

1.2 DEFINITIONS

A. "Preservation" - To apply measures necessary to sustain existing form, integrity, and materials of historic property. Work may include preliminary measures to protect and stabilize the property.

B. "Rehabilitation" - To make possible a compatible use for property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values.

C. "Restoration" - To accurately return form, features, and character of a property to its appearance at a particular period of time by means of removal of features from other periods in its history and repair and reconstruction of missing and deteriorated features from the restoration period.

D. "Reconstruction" - To reproduce in exact form and detail, a building, structure, or artifact as it appeared at a specific period in time. Reconstructed elements do not possess historic integrity in their own right since they are-not original fabric.

E. "Stabilize" - To apply measures designed to reestablish a weather-resistant enclosure and structural reinforcement of an item or portion of the building while maintaining essential form as it exists at present. This level of intervention is aimed at retarding or arresting adverse impacts to structures.

F. "Protect and Maintain" - To remove deteriorating corrosion, reapply protective coatings, and install protective measures such as temporary guards; to provide the least degree of intervention.

G. "Repair" - To stabilize, consolidate, or conserve; to retain existing materials and features while employing as little new material as possible. Repair includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials. Within restoration, repair also includes limited replacement in kind, rehabilitation, and reconstruction, with compatible substitute materials for deteriorated or missing parts of features when there are surviving prototypes.

H. "Replace" - To duplicate in its entirety, a historic element or feature by matching its historic pattern, detail and appearance. Replacement is justified when original or historic elements are damaged beyond repair or are missing. Replacement conditions and methods include:

1. Replacement with Original or Historic Fabric: Includes fabric salvaged from other locations or projects having identical architectural qualities. Duplication of appearance using identical material possessing historical significance.
2. Replacement with New Materials: Includes replacement with new material of like kind (custom fabricated of manufactured). Duplication of appearance using like material.
3. Replacement with Substitute Materials: Includes replacement with a compatible substitute that is frequently contemporary and unlike the historic fabric. Duplication of appearance using modern (non-traditional) material Use of substitute materials is not approved unless matching materials are not available.

I. "Remove" - To demolish or detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.

J. "Remove and Salvage" - To detach items from existing construction and deliver them ready or reuse to Contracting Officer or designee.

K. "Remove and Reinstall" - To detach items from existing construction, repair and prepare for reuse, and reinstall where indicated.

L. "Existing to Remain" or "Retain" - Existing items of construction not to be removed and not otherwise indicated to be removed and salvaged or removed and reinstalled.

M. "Material in Kind" - Material that closely matches existing materials through comparison of architectural qualities and salient characteristic such as species, cut, color, grain, dimension, profile, thickness, and finish.

1.3 SUBMITTALS

A. Historic Preservation Treatment Plan:

1. After contract award and before Pre-Construction conference, submit for approval a written Historic Preservation Treatment Plan (HPTP).
2. If the plan requires revisions or corrections, Contractor shall resubmit plan within 10 days.
3. No change in approved plan may be made without written concurrence by Contracting Officer.

B. Alternative Methods and Materials: If alternative methods and materials to those indicated are proposed for any phase of work, provide a written description including evidence of successful use on other, comparable projects, and program of testing to demonstrate effectiveness for use on this Project.

C. Photographs or Videotape: In accordance with Section 01 32 33 "Photographic Documentation," show existing conditions of adjoining construction and site improvements including finish surfaces that might be misconstrued as damage caused by historic treatment operations. Submit before work begins.

1.4 QUALITY ASSURANCE

A. Historic Preservation Treatment Specialist Qualifications: Experienced firm with required certifications and training able to demonstrate through past performance they are qualified to perform this work.

1.5 STORAGE AND PROTECTION OF HISTORIC MATERIALS

A. Removed and Salvaged Historic Materials:

1. Clean salvaged historic items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in secure area until delivery to Contracting Officer.
4. Transport items to storage area designated within the Park and directed by the Contracting Officer.
5. Protect items from damage during transport and storage.
6. Do not dispose of items removed from existing construction without prior written consent of Contracting Officer.

B. Removed and Reinstalled Historic Materials:

1. Clean and repair historic items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use as designed.

C. Existing Historic Materials to Remain: Protect construction indicated to remain against damage and soiling during historic treatment. When permitted by Contracting Officer, items may be removed to suitable, protected storage location during historic treatment, cleaned and reinstalled in their original locations after historic treatment operations are complete.

D. Storage and Protection: When removed from existing location, store historic materials within weather-tight enclosure protected from wetting by rain, snow, or ground water, and temperature variations. Secure stored materials to protect from theft.

1. Identify removed items with an inconspicuous mark indicating original location.
2. Develop key plan when many similar items are scheduled for removal and reinstallation.

1.6 PROJECT-SITE CONDITIONS

A. Exterior Cleaning and Repairing:

1. Proceed with work only when forecasted weather conditions are favorable.

a. Wet Weather: Do not attempt repairs during rainy or foggy weather.
b. Do not perform exterior wet work when air temperature is below 40 degrees Fahrenheit (5 degrees Celsius).
c. Do not begin cleaning, patching, or repairing given likelihood of frost or freezing.
d. Do not begin cleaning when either air or surface temperature is below 45 degrees Fahrenheit (7 degrees Celsius) unless approved means are provided for maintaining 45 degrees Fahrenheit (7 degrees Celsius) temperature of air and materials during, and for 48 hours subsequent to, cleaning.

2. Perform cleaning and rinsing of the exterior only during daylight hours.

B. Archeological Protection shall be completed in accordance with Section 01 35 13.22 and the 2025 Archeological Protection Plan which is provided with these Contract Documents.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 HISTORIC PRESERVATION TREATMENT PLAN

A. Prepare written plan for preservation work covering preservation components of project. Plan shall verify construction strategy and intent is compatible with Department of the Interior's (DOI) standards for Treatment of Historic Properties, guidelines for Treatment of Cultural Landscapes, and National Park Service management policies for cultural resources. Plan shall satisfy both project scope and resource protection requirements. Plan shall include:

1. Organized list of preservation components of project, systems, and tasks
2. Staging and sequence of work
3. Disassembly and reassembly techniques and steps
4. Equipment and tools required
5. Supplies and materials with manufacturer or supplier identified
6. Skilled trades and crafts required
7. Anticipated testing and analysis of fabric
8. Additional investigations for extents or magnitude of treatments needed
9. Protective measures
10. Seasonal limitations on work
11. Alternative means if primary treatment method is unfeasible
12. Work conducted off-site (Approval from Contracting Officer required prior to taking resources off-site).

3.2 PROTECTION, GENERAL

A. Comply with manufacturer's written instructions for precautions and effects of products and procedures on adjacent building materials, components, and vegetation.

B. Ensure supervisory personnel are present when work begins and during progress.

C. Temporary Protection of Historic Materials during Construction:

1. Protect existing materials during installation of temporary protections and construction. Do not deface or remove existing materials.
2. Attachments of temporary protection to existing construction shall be approved by Contracting Officer prior to installation.

D. Protect landscape work adjacent to or within work areas as follows:

1. Provide barriers to protect tree trunks within the Limits of Disturbance.
2. Bind spreading shrubs.
3. Coverings shall allow plants to breathe. Remove coverings at end of day. Do not cover plant material with waterproof membrane more than 8 hours at a time.
4. Set scaffolding and ladder legs away from plants.

3.3 PROTECTION DURING APPLICATION OF CHEMICALS

A. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm or damage resulting from applications of chemical cleaners and paint removers.

B. Comply with requirements in Section 01 50 00 "Temporary Facilities and Controls."

C. Cover adjacent surfaces with materials proven to resist chemical cleaners selected for Project unless chemicals being used will not damage adjacent surfaces. Use covering materials containing only waterproof, UV (ultraviolet)-resistant adhesives. Apply masking agents to comply with manufacturer's written instructions. Do not apply liquid masking agent to painted or porous surfaces. Promptly remove masking to prevent adhesive staining on completion.

D. Do not clean surfaces during winds of sufficient force to spread cleaning solutions to unprotected surfaces.

E. Neutralize and collect alkaline and acid wastes and dispose of outside park boundaries.

F. Dispose of runoff from chemical operations by legal means and in a manner preventing soil erosion, undermining of paving and foundations, damage to landscaping, and water penetration into building interiors.

G. Document daily clean-up, proper storage, and disposition of any flammable/combustible materials with daily reports.

3.4 PROTECTION DURING USE OF HEAT-GENERATING EQUIPMENT

A. Comply with following procedures while performing work with heat-generating equipment, including welding, cutting, soldering, brazing, paint removal with heat, and other operations where open flames or implements utilizing heat are used:

1. Obtain Contracting Officer's approval for operations involving use of open-flame or welding equipment.

    a. Notification shall be given for each occurrence and location of work with heat-generating equipment.
    b. Obtain appropriate permit from the park as required.

2. Before work with heat-generating equipment commences, furnish fire watch (or watches) for location(s) where work is to be performed.
3. Do not perform work with heat-generating equipment in areas where flammable liquids or explosive vapors are present or thought to be present. Use combustible gas indicator test to ensure area is safe.
4. Remove and keep area free of combustibles, including, leaves & plants rubbish, paper, waste, etc., within area of operations.

    a. If combustible material cannot be removed, provide fireproof blankets to cover such materials.

5. Where possible, furnish and use baffles of metal or gypsum board to prevent spraying of sparks or hot slag into surrounding combustible material.
6. Inspect each location of day's work not sooner than 30 minutes after completion of operations to detect hidden or smoldering fires; ensure proper housekeeping is maintained.

3.5 HISTORIC PRESERVATION TREATMENT PROCEDURES

A. The principal aim of preservation work is to halt the process of deterioration and stabilize the item's condition to sustain the integrity of the historic element, feature or structure being preserved. Cyclic maintenance is often required as well as repair work. Repair is required where specifically indicated. The following procedures shall be followed:

1. Retain as much existing material as possible; repair and consolidate rather than replace.
2. Use additional material or structure to reinforce, strengthen, prop, tie, and support existing material or structure.
3. Use reversible processes wherever possible.
4. Use traditional replacement materials and techniques if possible. New work shall be distinguishable from old work and original materials and techniques.
5. Record repair work during construction with periodic construction photos and daily inspection reporting. Photo documentation is specified in Section 01 32 33 "Photographic Documentation."

B. Prohibit smoking by personnel performing work on or near historic structures.

C. Notify Contracting Officer of visible changes in integrity of material or components due to environmental causes including biological attack, UV degradation, freezing, or thawing, or due to structural defects including cracks, movement, or distortion.

1. Do not proceed with work in question until directed by Contracting Officer.

D. Where Work requires existing features to be removed, cleaned, and reinstalled, perform operations without damage to material itself, to adjacent materials, or to substrate.

E. Identify new or replacement materials and features with inconspicuous, permanent marks to distinguish from original materials. Record legend of identification marks and locations of these marks on Record Drawings.

F. When cleaning, match samples of existing materials that have been cleaned and identified for acceptable cleaning levels. Avoid over-cleaning to prevent damage. Use gentlest methods available. Initiate cleaning using hand cleaning methods before introducing power cleaning methods and equipment.

END OF SECTION 01 35 91

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 40 00 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with Contract Document requirements. Quality of work shall be responsibility of the Contractor.

1. Specified tests, inspections, and related actions do not limit Contractor's other quality assurance and control procedures that facilitate compliance with Contract Document requirements.

C. See Divisions 2 through 49 Sections for specific test and inspection requirements.

1.2 DEFINITIONS

A. Quality Assurance Services: Activities, actions, and procedures performed before and during execution of the work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.

B. Quality Control Services: Tests, inspections, procedures, and related actions during and after execution of the work to evaluate actual products incorporated into the work and completed construction comply with requirements.

C. Preconstruction Testing: Tests and inspections performed specifically for project before products and materials are incorporated into work to verify performance or compliance with specified criteria.

D. Product Testing: Tests and inspections performed by a Nationally Recognized Testing Laboratory (NRTL), a National Voluntary Laboratory Accreditation Program (NVLAP), or a testing agency qualified to conduct product testing, to establish product performance and compliance with industry standards.

E. Source Quality Control Testing: Tests and inspections performed at the source, i.e., plant, mill, factory, or shop.

F. Field Quality Control Testing: Tests and inspections performed on-site for installation of work and for completed work.

G. Testing Agency or Laboratory: Entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

H. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.

1. Using a term such as "carpentry" does not imply certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to trades people of corresponding generic name.

1.3 CONFLICTING REQUIREMENTS

A. Reference Standards: If compliance with two or more standards is specified and standards establish different or conflicting requirements for minimum quality levels, comply with most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Contracting Officer before proceeding.

B. Minimum Quality Levels: Quality level shown or specified shall be minimum provided or performed. Actual installation may comply exactly with minimum quality specified, or it may exceed minimum within reasonable limits. To comply with requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Contracting Officer before proceeding.

1.4 SUBMITTALS

A. Quality Control Plan:

1. After contract award and before Pre-Construction conference, submit a written Contractor Quality Control (CQC) plan.
2. If plan requires revisions or corrections, Contractor shall resubmit plan within 10 days.
3. Government reserves the right to require changes in plan during contract period as necessary to obtain the quality specified.
4. No change in the approved plan may be made without written concurrence by Contracting Officer.

B. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in form of a recent report on inspection of testing agency by a recognized authority.

C. Contractor Quality Control (CQC) Daily Reports: Submit showing inspections and tests on first workday following date covered by report. Quality Control Supervisor shall utilize DSC Forms.

1. Review Construction Management Representative (CMR) Daily report if applicable and reconcile any differences prior to posting.

D. Test Reports:

1. Test reports shall be completed by person performing test.
2. Submit Daily Test Information Sheets with Quality Control Daily Reports.
3. Submit failing test results and proposed remedial actions within four hours of noted deficiency.

4. Submit three copies of complete test results no later than one calendar day after test was performed.

E. Accessibility Inspection Report:

1. Fill out applicable sections of the Accessibility Inspection Report and attach to Contractor Quality Control Daily Report.
2. Utilize Accessibility Inspection form that is available by accessing the DSC workflows website, http://www.nps.gov/dscw/publicforms.htm to document compliance with Architectural Barriers Act Accessibility Standards (ABAAS).
3. Inspect at various stages of construction as needed to ensure finished product meets standards.
4. Submit report no later than one calendar day after inspection was performed.

F. Off-Site Inspection Reports: Submit prior to shipment.

G. If Contractor Quality Control plan and Quality Control Daily Reports are not submitted as specified, Contracting Officer may retain payments until such time plan(s) is/are accepted and implemented, or may retain payments for work completed on days with no Quality Control Daily Reports.

H. Permits, Licenses, and Certificates: For National Park Service (NPS) records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of work.

1.5 QUALITY ASSURANCE

A. General: Qualifications paragraphs in this Article establish minimum qualification levels required; individual Specification Sections specify additional requirements.

B. Contractors Quality Control Staff:

1. Contractor's Quality Control Supervisor may also perform other duties.
2. Contractor's designated Quality Control Supervisor shall be on the project site whenever contract work is in progress.
3. Contractor's job supervisory staff may be used to assist Quality Control Supervisor supplemented, as necessary, by additional certified testing technicians.

C. Installer Qualifications: Firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent indicated for Project, whose work has resulted in construction with a record of successful in-service performance.

D. Manufacturer Qualifications: Firm experienced in manufacturing products or systems similar to those indicated for Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

E. Fabricator Qualifications: Firm experienced in producing products similar to those indicated for Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

F. Professional Engineer Qualifications: Professional engineer legally qualified to practice in jurisdiction where Project is located and is experienced in providing engineering services of kind indicated (including Structural Tests and Special Inspections (STSI)). Engineering services are defined as those performed for installations of system, assembly, or products similar to those indicated for Project in material, design, and extent.

G. Testing Agency Qualifications: A Nationally Recognized Testing Laboratory (NRTL), a National Voluntary Laboratory Accreditation Program (NVLAP), or an independent agency with experience and capability to conduct testing and inspecting indicated, according to ASTM E 329; and with additional qualifications specified in individual Sections; and where required by Contract, is acceptable to Contracting Officer.

1. Nationally Recognized Testing Laboratory (NRTL): Nationally recognized testing laboratory according to 29 CFR 1910.7 (Code of Federal Regulations).
2. National Voluntary Laboratory Accreditation Program (NVLAP): Testing agency accredited according to National Institute of Standards and Technology's (NIST) National Voluntary Laboratory Accreditation Program.
3. Measuring devices, laboratory equipment, and instruments shall be calibrated at established intervals against certified standards in accordance with NIST requirements. Measuring and testing devices shall be made available for use by Government for verification tests.

H. Factory-Authorized Service Representative Qualifications: Authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products similar in material, design, and extent to those indicated for Project.

1.6 QUALITY CONTROL

A. Contractor is responsible for testing and inspections, including Structural Tests and Special Inspections (STSI), as identified in attached STSI. Inspect and test work as needed to ensure quality of materials, workmanship, construction, finish, and functional performance are in compliance with applicable specifications, drawings, and those required by ABAAS.

1. Engage qualified testing agency to perform quality-control services.
2. Submit appropriate report for each quality-control service.
3. Testing and inspecting requested by Contractor and not required by Contract Documents are Contractor's responsibility.
4. Contracting Officer may designate test locations.

B. Manufacturer's Field Services: Where indicated, engage factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.

C. Re-testing/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and re-inspecting, for construction of replaced work that failed to comply with Contract Documents.

D. Testing Agency Responsibilities: Cooperate with NPS and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify Contracting Officer and Contractor promptly of irregularities or deficiencies observed in work during performance of services.
2. Determine location from which test samples will be taken and in which in-situ tests are conducted.
3. Conduct and interpret tests and inspections, State in each report whether tested and inspected work complies with or deviates from requirements.
4. Submit 3 copies of certified written report of each test, inspection, and similar quality-control service through Contractor.
5. Do not release, revoke, alter, or increase Contract Document requirements or approve or accept any portion of Work.

E. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide:

1. Access to Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Delivery of samples to testing agencies.
6. Preliminary design mix proposed for material mixes that require control by testing agency.
7. Security and protection for samples and testing and inspecting equipment at Project site.

F. Coordination: Coordinate sequence of activities to accommodate required quality assurance and control services with minimum delay and to avoid removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 - PRODUCTS

2.1 QUALITY CONTROL PLAN

A. Quality Control Plan shall include:

1. List of personnel responsible for quality control and assigned duties. Include each person's qualifications. Include alternate(s) and qualifications.
2. Copy of letter of direction to Contractor's Quality Control Supervisor(s) outlining assigned duties and authorities designated by principal or owner.
3. Names, qualifications / accreditations, and descriptions of laboratories to perform sampling and testing, and samples of proposed report forms from laboratories.
4. Methods of performing, documenting, and enforcing quality control of work including Contractor report forms and acknowledgment of NPS forms.
5. Methods of monitoring and controlling environmental pollution and contamination as required by regulations and laws.
6. Specific discussion regarding mockups, off-site visits, receiving inspections, manufacturers representation, startup requirements, and other aspects of performance specific to Project.
7. Provisions for substantial completion(s) and final inspection(s) per Contract.

PART 3 - EXECUTION

3.1 OFF-SITE CONTROL

A. Items fabricated or assembled off-site shall be inspected for quality control at place of fabrication.

3.2 ON-SITE CONTROL

A. Notification:

1. Notify Contracting Officer at least 48 hours in advance of preparatory phase meeting.
2. Notify Contracting Officer at least 24 hours in advance of initial and follow-up phases.

B. Preparatory Phase: Perform before beginning each feature of work.

1. Review control submittal requirements with personnel directly responsible for quality assurance and quantity control of the work. As a minimum, Contractor's Quality Control Supervisor and foreman responsible for feature of work shall be in attendance.
2. Review applicable specifications sections and drawings related to feature of work.
3. Ensure copies of referenced standards related to sampling, testing, and execution for feature of work are available on site.
4. Ensure provisions have been made for field control testing.
5. Examine work area to ensure preliminary work has been completed.
6. Verify field dimensions and advise Contracting Officer of discrepancies with contract documents.
7. Ensure necessary equipment and materials are at project site and they comply with approved shop drawings and submittals.
8. Document preparatory phase activities and discussions on Contractor's Quality Control Daily Report.

C. Initial Phase:

1. As soon as work begins, inspect and test representative portion of particular feature of work for quality of workmanship.
2. Review control testing procedures to ensure compliance with contract requirements.
3. Document initial phase activities and discussions on Contractor's Quality Control Daily Report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.

D. Follow-Up Phase: Inspect and test as work progresses to ensure compliance with contract requirements until completion of work.

E. Additional Preparatory and Initial Phases: Additional preparatory and initial phases may be required on same feature of work for following reasons:

1. Quality of on-going work is unacceptable.
2. Changes in quality control staff, on-site production supervision, or work crew.
3. Work on particular feature of work is resumed after substantial period of inactivity.

3.3 DOCUMENTATION

A. Maintain Quality Control Daily Reports, Daily Test Report Information Sheets, and Accessibility Inspection Reports of quality control activities and tests. (Download from DSC Workflows website > Forms/Templates/Samples/Guidelines page > Construction Forms section.)

B. Quality Control Daily Reports shall not be substituted for other written reports required under clauses of contract, such as Disputes, Differing Site Conditions, or Changes.

C. Quality Control Daily Reports shall accurately portray all work and materials. The materials shall match the materials as approved from the Construction Documents (CD) requirements. Combustible/flammable materials shall be documented as well.

3.4 ENFORCEMENT

A. Contractor shall stop work on any item or feature pending satisfactory correction of deficiency noted by quality control staff or Contracting Officer.

3.5 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Specification Sections. Restore patched areas and extend restoration into adjoining areas with durable seams as invisible as possible.

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01 40 00

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 42 00 – REFERENCE STANDARDS

PART 1 - GENERAL

1.1 ENVIRONMENTAL DEFINITIONS

A. Definitions pertaining to sustainable development: As defined in ASTM E2114 and as specified herein.

B. Biobased Materials: As defined in the Farm Security and Rural Investment Act, for purposes of Federal procurement of biobased products, "biobased" means a "commercial or industrial product (other than food or feed) that is composed, in whole or in significant part, of biological products or renewable domestic agricultural materials (including plant, animal, and marine materials) or forestry materials." Biobased materials also include fuels, chemicals, building materials, or electric power or heat produced from biomass as defined by The Biomass Research and Development Act of 2000.

1. Biobased content: Amount of biobased carbon in the material or product as a percentage of weight (mass) of total organic carbon in the material or product.

C. Chain-of-Custody: Process whereby a product or material is maintained under physical possession or control during its entire life cycle.

D. Deconstruction: Disassembly of buildings for purpose of recovering materials.

E. DFE (Design for the Environment): A technique that includes elements of resource conservation and pollution prevention as applied in various product sectors. A technique that incorporates approaches which are part of product (or assembly) concept, need and design. Considerations involve material selection, material and energy efficiency, reuse, maintainability and design for disassembly and recyclability. Refer to International Organization for Standardization (ISO) Guide 64 for additional clarification.

F. Environmentally preferable products: Products and services that have a lesser or reduced effect on the environment in comparison to conventional products and services. Refer to EPA's Final Guidance on Environmentally Preferable Purchasing Program.

G. Non-Renewable Resource: A resource that exists in a fixed amount that cannot be replenished on a human time scale. Non-renewable resources have potential for renewal only by geological, physical, and chemical processes taking place over of millions of years. Examples include iron ore, coal, and oil.

H. Perpetual Resource: A resource that is virtually inexhaustible on a human time scale. Examples include solar energy, tidal energy, and wind energy.

I. Recycled Content Materials: Products that contain pre-consumer or post-consumer materials as all or part of their feedstock. Recycled content claim shall be consistent Federal Trade Commission (FTC) Guide for Use of Environmental Marketing Claims.

J. Renewable Resource: A resource that is grown, naturally replenished, or cleansed, at a rate which exceeds depletion of the usable supply of that resource. A renewable resource can be exhausted if improperly managed. However, a renewable resource can last indefinitely with proper stewardship. Examples include trees in forests, grasses in grasslands, and fertile soil.

1.2 QUALITY ASSURANCE

A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into Contract Documents to the extent referenced. Such standards are made a part of Contract Documents by reference.

B. Publication Dates: Comply with standards in effect as of date of Contract Documents, unless otherwise indicated.

C. Conflicting Requirements: Where compliance with two or more standards is specified, and standards may establish different or conflicting requirements for minimum quantities or quality levels, comply with most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Contracting Officer (CO) for decision before proceeding.

1.3 INDUSTRY STANDARDS

A. Applicability of Standards: Unless Contract Documents include more stringent requirements, applicable construction industry standards have same force and effect as if bound or copied directly into Contract Documents to the extent referenced. Such standards are made a part of Contract Documents by reference.

B. Publication Dates: Comply with standards in effect as of date of Contract Documents unless otherwise indicated.

C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.4 ABBREVIATIONS AND ACRONYMS

A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities found in Section 01 42 00 Sources for Reference Publications, Unified Facilities Guide Specifications (UFGS) (accessible via Masters website > Downloads section > click on UFGS Master (WBDG Website). Names, telephone numbers, and websites are subject to change and are believed to be accurate and up-to-date as of date of Contract Documents.

AA	Aluminum Association (The) www.aluminum.org	(703) 358-2960
AASHTO	American Association of State Highway and Transportation Officials www.transportation.org	(202) 624-5800
ACI	American Concrete Institute www.concrete.org	(248) 848-3700
ACPA	American Concrete Pipe Association www.concrete-pipe.org	(972) 506-7216
AEIC	Association of Edison Illuminating Companies, Inc. (The) www.aeic.org	(205) 257-2530
AF&PA	American Forest & Paper Association www.afandpa.org	(800) 878-8878 (202) 463-2700
AGA	American Gas Association www.aga.org	(202) 824-7000
AI	Asphalt Institute www.asphaltinstitute.org	(859) 288-4960
AISI	American Iron and Steel Institute www.steel.org	(202) 452-7100
AITC	American Institute of Timber Construction www.plib.org/aitc	
ALSC	American Lumber Standard Committee, Incorporated www.alsc.org	(301) 972-1700
ANSI	American National Standards Institute www.ansi.org	(202) 293-8020

AOSA	Association of Official Seed Analysts, Inc. www.aosaseed.com	(405) 780-7372
API	American Petroleum Institute www.api.org	(202) 682-8000
APLS	Approved Product Lists Division Approved Product Lists (APLS) (wv.gov)	
ASCE	American Society of Civil Engineers www.asce.org	(800) 548-2723 (703) 295-6300
ASCE/SEI	American Society of Civil Engineers/Structural Engineering Institute (See ASCE)	
ASTM	ASTM International (American Society for Testing and Materials International) www.astm.org	(610) 832-9500
AWPA	American Wood Protection Association (Formerly: American Wood Preservers' Association) www.awpa.com	(205) 733-4077
AWWA	American Water Works Association www.awwa.org	(800) 926-7337 (303) 794-7711
CISPI	Cast Iron Soil Pipe Institute www.cispi.org	(423) 892-0137
CLFMI	Chain Link Fence Manufacturers Institute www.chainlinkinfo.org	(301) 596-2583
CRSI	Concrete Reinforcing Steel Institute www.crsi.org	
CSI	Construction Specifications Institute (The) www.csinet.org	(800) 689-2900 (703) 684-0300
FHWA	Federal Highway Administration www.fhwa.dot.gov	
FM Global	FM Global (Formerly: FMG - FM Global) www.fmglobal.com	(401) 275-3000
FSC	Forest Stewardship Council www.fsc.org	49 228 367 66 0

GS	Green Seal www.greenseal.org	(202) 872-6400
GSI	Geosynthetic Institute www.geosynthetic-institute.org	(610) 522-8440
ICRI	International Concrete Repair Institute, Inc. www.icri.org	(847) 827-0830
ISO	International Organization for Standardization www.iso.ch	41 22 749 01 11
MH	Material Handling (Now MHIA)	
MHIA	Material Handling Industry of America www.mhia.org	(800) 345-1815 (704) 676-1190
MUTCD	Manual on Uniform Traffic Control Devices Manual on Uniform Traffic Control Devices (MUTCD) - FHWA (dot.gov)	
NAAMM	National Association of Architectural Metal Manufacturers www.naamm.org	
NCMA	National Concrete Masonry Association www.ncma.org	(703) 713-1900
NDDOT	North Dakota Department of Transportation www.dot.nd.gov	
NECA	National Electrical Contractors Association www.necanet.org	
NeLMA	Northeastern Lumber Manufacturers' Association www.nelma.org	(207) 829-6901
NEMA	National Electrical Manufacturers Association www.nema.org	
NHLA	National Hardwood Lumber Association www.natlhardwood.org	(800) 933-0318 (901) 377-1818
NLGA	National Lumber Grades Authority www.nlga.org	(604) 524-2393
NRMCA	National Ready Mixed Concrete Association www.nrmca.org	(888) 846-7622 (301) 587-1400

NSF	NSF International (National Sanitation Foundation International) www.nsf.org	(800) 673-6275 (734) 769-8010
NSSGA	National Stone, Sand & Gravel Association www.nssga.org	(800) 342-1415 (703) 525-8788
PCI	Precast/Prestressed Concrete Institute www.pci.org	(312) 786-0300
PGI	PVC Geomembrane Institute http://pgi-tp.cee.uiuc.edu	(217) 333-3929
SEI/ASCE	Structural Engineering Institute/American Society of Civil Engineers (See ASCE)	
SPIB	Southern Pine Inspection Bureau (The) www.spib.org	(850) 434-2611
TMS	The Masonry Society www.masonrysociety.org	(303) 939-9700
TPI	Turfgrass Producers International www.turfgrasssod.org	(800) 405-8873 (847) 649-5555
UL	Underwriters Laboratories Inc. www.ul.com	(877) 854-3577 (847) 272-8800
UNI	Uni-Bell PVC Pipe Association www.uni-bell.org	(972) 243-3902

B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in following list. Names, telephone numbers, and websites are subject to change and are believed to be accurate and up-to-date as of date of Contract Documents.

DIN	Deutsches Institut fur Normung e.V. www.din.de	49 30 2601-3003
IAPMO	International Association of Plumbing and Mechanical Officials www.iapmo.org	(909) 472-4100

ICC	International Code Council www.iccsafe.org	(888) 422-7233
ICC-ES	ICC Evaluation Service, Inc. icc-es.org	(800) 423-6587 (562) 699-0543

C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in following list. Names, and websites are subject to change and are believed to be accurate and up-to-date as of date of Contract Documents.

ADAAG	Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities Available from U.S. Access Board www.access-board.gov	(800) 872-2253
ABA & ABAAS United States Access Board	Architectural Barriers Act (ABA) Architectural Barriers Act Accessibility Standards (ABAAS) www.access-board.gov	
CDC	Center of Disease Control www.cdc.gov	
CoE	Army Corps of Engineers www.usace.army.mil	
CPSC	Consumer Product Safety Commission www.cpsc.gov	
DOC	Department of Commerce www.commerce.gov	
DOD	Department of Defense www.defense.gov	
DOI	Department of the Interior www.doi.gov	
DOJ	Department of Justice www.justice.gov	
DOE	Department of Energy	

www.energy.gov

EPA Environmental Protection Agency
www.epa.gov

FAA Federal Aviation Administration
www.faa.gov

FAR Federal Acquisition Regulation
Federal Acquisition Regulation (FAR) | GSA

FCC Federal Communications Commission
www.fcc.gov

FDA Food and Drug Administration
www.fda.gov

FEMA Federal Emergency Management Agency
www.fema.gov

GSA General Services Administration
www.gsa.gov

HUD Department of Housing and Urban Development
www.hud.gov

LBL Lawrence Berkeley National Laboratory
www.lbl.gov

NCHRP National Cooperative Highway Research Program
(See TRB (Transportation Resource Board))

NFPA National Fire Protection Association
www.nfpa.org

NIST National Institute of Standards and Technology
www.nist.gov

NPDES National Pollutant Discharge Elimination System
www.epa.gov/npdes

NOAA National Oceanic and Atmospheric Administration
www.noaa.gov

NRTL Nationally Recognized Testing Laboratory
OSHA's Nationally Recognized Testing Laboratory (NRTL) Program | Occupational Safety and Health Administration

NTP National Toxicology Program
Home - National Toxicology Program (nih.gov)

NVLAP National Voluntary Laboratory Accreditation Program
www.nist.gov/nvlap

OSHA Occupational Safety & Health Administration
www.osha.gov

PHS U.S. Department of Health and Human Services
www.hhs.gov

RUS Rural Utilities Service
(See USDA (Department of Agriculture))

SD State Department
www.state.gov

TRB Transportation Research Board
www.nationalacademies.org/trb/transportation-research-board

USDA Department of Agriculture
www.usda.gov

USP U.S. Pharmacopeia
www.usp.org

USPS Postal Service
www.usps.com

D. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in following list. Names, telephone numbers, and websites are subject to change and are believed to be accurate and up-to-date as of date of Contract Documents.

ABAAS Architectural Barriers Act Accessibility Standards
www.access-board.gov

ARPA Archeological Resources Protection Act
NPS Archeology Program: The Archaeological Resources Protection Act of 1979 (ARPA)

CFR Code of Federal Regulations
Available from Government Printing Office
www.govinfo.gov/app/collection/cfr

DOD Department of Defense Military Specifications and Standards
Available from Department of Defense Single Stock Point
www.dsp.dla.mil/Specs-Standards/

DSCC	Defense Supply Center Columbus (See FS (Federal Specification))
FED-STD	Federal Standard (See FS (Federal Specification))
FS	Federal Specification Available from Department of Defense Single Stock Point www.dsp.dla.mil/Specs-Standards/ Available from General Services Administration www.gsa.gov Available from National Institute of Building Sciences www.nibs.org
FTMS	Federal Test Method Standard (See FS (Federal Specification))
MIL	(See MILSPEC (Military Specification and Standards))
MIL-STD	(See MILSPEC (Military Specification and Standards))
MILSPEC	Military Specification and Standards Available from Department of Defense Single Stock Point www.dsp.dla.mil/Specs-Standards/
UFAS	Uniform Federal Accessibility Standards Available from Access Board www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-aba-standards/ufas *(UFAS is **only** for housing projects per Fair Housing Act. See also the Fair Housing Act Design Manual, www.huduser.gov/portal/publications/destech/fairhousing)*

1.5 ENVIRONMENTAL REFERENCE STANDARDS

A. American Forest and Paper Association:

1. Sustainable Forestry Initiative

B. American Association of State Highway and Transportation Officials (AASHTO):

- M288 Geotextile Specification for Highway Applications
- MP009-06 Standard Specification for Compost for Erosion/Sediment Control (Filter Berms and Filter Socks)
- MP010-03 Standard Specification for Compost for Erosion/Sediment Control (Compost Blankets)

C. American Society for Testing and Materials International (ASTM):

- A153/A153M Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
- A307 Standard Specification for Carbon Steel Externally Threaded Standard Fasteners
- A478 Standard Specification for Chromium-Nickel Stainless Steel Weaving and Knitting Wire
- A493 Standard Specification for Zirconium and Zirconium Alloy Forgings
- A563 Standard Specification for Carbon and Alloy Steel Nuts
- A580/A580M Standard Specification for Stainless Steel Wire
- A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
- A706/A706M Standard Specification for Deformed and Plain Low-Alloy Steel Bars for Concrete Reinforcement
- A775/A775M Standard Specification for Epoxy-Coated Steel Reinforcing Bars
- A884/A884M Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement
- B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
- B695 Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel
- C1240 Standard Specification for Silica Fume Used in Cementitious Mixtures
- C128 Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate
- C1293 Standard Test Method for Determination of Length Change of Concrete Due to Alkali-Silica Reaction
- C131 Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
- C136 Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
- C143/C143M Standard Test Method for Slump of Hydraulic-Cement Concrete
- C144 Standard Specification for Aggregate for Masonry Mortar
- C150/C150M Standard Specification for Portland Cement
- C207 Standard Specification for Hydrated Lime for Masonry Purposes
- C231/C231M Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
- C289 Standard Test Method for Potential Alkali-Silica Reactivity of Aggregates (Chemical Method)
- C311 Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use as a Mineral Admixture in Portland-Cement Concrete
- C33 Standard Specification for Concrete Aggregates
- C387/C387M Standard Specification for Packaged, Dry, Combined Materials for Concrete and High Strength Mortar
- C39/C39M Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
- C40 Standard Test Method for Organic Impurities in Fine Aggregates for Concrete
- C593 Standard Specification for Fly Ash and Other Pozzolans for Use With Lime
- C595 Standard Specification for Blended Hydraulic Cements
- C602 Standard Specification for Agricultural Liming Materials
- C618 Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete
- C825 Standard Specification for Precast Concrete Barriers
- C858 Standard Specification for Underground Precast Concrete Utility Structures

- C913 Standard Specification for Precast Concrete Water and Wastewater Structures
- C915 Standard Specification for Precast Reinforced Concrete Crib Wall Members
- C923 Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and laterals
- C936/C936M Standard Specification for Solid Concrete Interlocking Paving Units
- C989 Standard Specification for Ground Granulated Blast-Furnace Slag for Use in Concrete and Mortars
- C990 Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants
- D1435 Standard Practice for Outdoor Weathering of Plastics
- D1556/D1556M Standard Test Method for Density and Unit Weight of Soil by Sand-Cone Method
- D1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 foot pound force per cubic foot (ft-lbf/ft3) (2,700 kilonewton meter per cubic meter (kN-m/m3))
- D1972 Standard Practice for Generic Marking of Plastic Products
- D198 Standard Test Methods of Static Tests of Lumber in Structural Sizes
- D2167 Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method
- D2321 Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications
- D2369 Standard Test Method for Volatile Content of Coatings
- D2487 Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System)
- D2835 Standard Specification of Lubricant for Installation of Preformed Compression Seals in Concrete Pavements Active Only
- D2922 Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
- D2937 Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method
- D2940 Standard Specification for Graded Aggregate Material for Bases or Subbases for Highways or Airports
- D3212 Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
- D3740 Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
- D3960 Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings
- D3963/D3963M Standard Specification for Fabrication and Jobsite Handling of Epoxy-Coated Steel Reinforcing Bars
- D4442 Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials
- D448 Standard Classification for Sizes of Aggregate for Road and Bridge Construction
- D4491 Standard Test Methods for Water Permeability of Geotextiles by Permittivity
- D4533/D4533M Standard Test Method for Trapezoid tearing Strength of Geotextiles
- D4632 Standard Test Method for Grab Breaking Load and Elongation of Geotextiles
- D4716 Test Method for Determining the (In-plane) Flow Rate per Unit Width and Hydraulic Transmissivity of a Geosynthetic Using a Constant Head

- D4751 Standard Test Method for Determining Apparent Opening Size of a Geotextile
- D4759 Standard Practice for Determining the Specification Conformance of Geosynthetics
- D4833 Standard Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Product
- D4840 Standard Guide for Sampling Chain-of-Custody Procedures
- D5199 Standard Test Method for Measuring the Nominal Thickness of Geosynthetics
- D5249 Standard Specification for Backer Material for Use with Cold – and Hot-Applied Joint Sealants in Portland-Cement Concrete and Asphalt Joints
- D5261 Standard Test Method for Measuring Mass per Unit Area of Geotextiles
- D5268 Standard Specification for Topsoil Used for Landscaping Purposes
- D5539 Standard Specification for Seed Starter Mix
- D5663 Standard Guide for Validating Recycled Content in Packaging Paper and Paperboard
- D5792 Standard Practice for Generation of Environmental Data Related to Waste Management Activities: Development of Data Quality Objectives
- D5834 Standard Guide for Source Reduction Reuse, Recycling, and Disposal of Solid and Corrugated Fiberboard (Cardboard)
- D5851 Standard Guide for Planning and Implementing a Water Monitoring Program
- D5852 Standard Test Method for Erodibility Determination of Soil in the Field or in the Laboratory by the Jet Index Method
- D5893 Standard Specification for Cold Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Concrete Pavements Active Only
- D6002 Standard Guide for Assessing the Compostability of Environmentally Degradable Plastics
- D6006 Standard Guide for Assessing Biodegradability of Hydraulic Fluid
- D6046 Standard Classification of Hydraulic Fluids for Environmental Impact
- D6108 Standard Test Method for Compressive Properties of Plastic Lumber and Shapes
- D6109 Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastic Lumber
- D6112 Standard Test Methods for Compressive and Flexural creep and Creep-Rupture of Plastic Lumber and Shapes
- D6117 Standard Test Methods for Mechanical Fasteners In Plastic Lumber and Shapes
- D6155 Standard Specification for Nontraditional Coarse Aggregates for Bituminous Paving Mixtures
- D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers
- D6245 Standard Guide for Using Indoor Carbon Dioxide Concentrations to Evaluate Indoor Air Quality and Ventilation
- D6261 Standard Specification for Extruded and Compression Molded Basic Shapes Made from Thermoplastic Polyester (TPES)
- D6262 Standard Specification for Extruded, Compression Molded, and Injection Molded Basic Shapes of Poly(aryl ether ketone) (PAEK)
- D6270 Standard Practice for Use of Scrap Tires in Civil Engineering Applications
- D6329 Standard Guide for Developing Methodology for Evaluating the Ability of Indoor Materials to Support Microbial Growth Using Static Environmental Chambers
- D6330 Standard Practice for Determination of Volatile Organic Compounds (Excluding Formaldehyde) Emissions from Wood-Based Panels Using Small Environmental Chambers Under Defined Test Conditions

- D6345 Standard Guide for Selection of Methods for Active, Integrative Sampling of Volatile Organic Compounds in Air
- D6400 Standard Specification for Compostable Plastics
- D6435 Standard Test Method for Shear Properties of Plastic Lumber and Plastic Lumber Shapes
- D6629 Standard Guide for Selection of Methods for Estimating Soil Loss by Erosion
- D6662 Standard Specification for Polyolefin-Based Plastic Lumber Decking Boards
- D698 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3))
- D7186 Standard Practice for Quality Assurance Observation of Roof Construction and Repair
- E1021 Standard Test Methods for Measuring Spectral Response of Photovoltaic Cells
- E1038 Standard Test Method for Determining Resistance of Photovoltaic Modules to Hail by Impact with Propelled Ice Balls
- E1039 Standard Test Method for Calibration of Silicon Non-Concentrator Photovoltaic Primary Reference Cells Under Global Irradiation
- E1040 Standard Specification for Physical Characteristics of Nonconcentrator Terrestrial Photovoltaic Reference Cells
- E1105 Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform or Cyclic Static Air Pressure Difference
- E1171 Standard Test Method for Photovoltaic Modules in Cyclic Temperature and Humidity Environments
- E1333 Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Under Defined Test Conditions Using a Large Chamber
- E1362 Standard Test Method for Calibration of Non-Concentrator Photovoltaic Secondary Reference Cells
- E1433 Standard Guide for Selection of Standards on Environmental Acoustics
- E1462 Standard Test Methods for Insulation Integrity and Ground Path Continuity of Photovoltaic Modules
- E1596 Standard Test Methods for Solar Radiation Weathering of Photovoltaic Modules
- E1597 Standard Test Method for Saltwater Pressure Immersion and Temperature Testing of Photovoltaic Modules for Marine Environments
- E1609 Standard Guide for Development and Implementation of a Pollution Prevention Program
- E1686 Standard Guide for Selection of Environmental Noise Measurements and Criteria
- E1690 Standard Test Method for Determination of Ethanol Extractives in Biomass
- E1721 Standard Test Method for Determination of Acid-Insoluble Residue in Biomass
- E1755 Standard Test Method for Ash in Biomass
- E1758 Standard Test Method for Determination of Carbohydrates in Biomass by High Performance Liquid Chromatography
- E1780 Standard Guide for Measuring Outdoor Sound Received from a Nearby Fixed Source
- E1799 Standard Practice for Visual Inspections of Photovoltaic Modules
- E1802 Standard Test Methods for Wet Insulation Integrity Testing of Photovoltaic Modules
- E1821 Standard Test Method for Determination of Carbohydrates in Biomass by Gas Chromatography
- E1827 Standard Test Methods for Determining Airtightness of Buildings Using an Orifice Blower Door

- E1830 Standard Test Methods for Determining Mechanical Integrity of Photovoltaic Modules
- E1861 Standard Guide for Use of Coal Combustion By-Products in Structural Fills
- E1918 Standard Test Method for Measuring Solar Reflectance of Horizontal and Low-Sloped Surfaces in the Field
- E1971 Standard Guide for Stewardship for the Cleaning of Commercial and Institutional Buildings
- E1980 Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces
- E1991 Standard Guide for Environmental Life Cycle Assessment of Building Materials/Products
- E2047 Standard Test Method for Wet Insulation Integrity Testing of Photovoltaic Arrays
- E2114 Standard Terminology for Sustainability Relative to the Performance of Buildings
- E2128 Standard Guide for Evaluating Water Leakage of Building Walls
- E2129 Standard Practice for Data Collection for Sustainability Assessment of Building Products
- E2397 Standard Practice for Determination of Dead Loads and Live Loads associated with Green Roof Systems
- E2398 Standard Test Method for Water Capture and Media Retention of Geocomposite Drain Layers for Green Roof Systems
- E2399 Standard Test Method for Maximum Media Density for Dead Load Analysis of Green Roof Systems
- E2400 Standard Guide for Selection, Installation, and Maintenance of Plants for Green Roof Systems
- E241 Standard Guide for Limiting Water-Induced Damage to Buildings
- E2432 Standard Guide for General Principles of Sustainability Relative to Buildings
- E329 Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection
- E408 Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques
- E413 Standard Classification for Rating Sound Insulation
- E477 Standard Test Method for Measuring Acoustical and Airflow Performance of Duct Liner Materials and Prefabricated Silencers
- E548 Standard Guide for General Criteria Used for Evaluating Laboratory Competence
- E648 Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source
- E683 Standard Practice for Installation and Service of Solar Space Heating Systems for One- and Two-Family Dwellings
- E779 Standard Test Method for Determining Air Leakage Rate by Fan Pressurization
- E781 Standard Practice for Evaluating Absorptive Solar Receiver Materials When Exposed to Conditions Simulating Stagnation in Solar Collectors With Cover Plates
- E782 Standard Practice for Exposure of Cover Materials for Solar Collectors to Natural Weathering Under Conditions Simulating Operational Mode
- E823 Standard Practice for Nonoperational Exposure and Inspection of a Solar Collector
- E881 Standard Practice for Exposure of Solar Collector Cover Materials to Natural Weathering Under Conditions Simulating Stagnation Mode
- E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements

- E903 Standard Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres
- E948 Standard Test Method for Electrical Performance of Photovoltaic Cells Using Reference Cells Under Simulated Sunlight
- F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride
- F2034 Standard Specification for Sheet Linoleum Floor Covering
- F2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes
- F606 Standard Test Method for Determining the Mechanical Properties of Externally and Internally Threaded Fasteners, Washers, and Rivets

D. Bat Conservation International:
- Bat Approved Bat Houses

E. Center for Resource Solutions
- Green-e program

F. Environmental Protection Agency (EPA):
- Comprehensive Procurement Guidelines
- ENERGY STAR
- Environmentally Preferable Purchasing Program Final Guidance
- GreenScapes program
- Heat Island Initiative
- National Environmental Performance Track
- Pollution Prevention (P2)
- Product Stewardship Program
- Significant New Alternatives Policy (SNAP) Program

G. Federal Trade Commission:
- Guide for the Use of Environmental Marketing Claims

H. Forest Stewardship Council:
- Chain-Of-Custody
- Forest Management

I. International Iron and Steel Institute:
- CO2 Breakthrough Program

J. International Organization of Standardization:
- Guide 64; Guide for Inclusion of Environmental Aspects in Product Standards
- 9660 Information processing -- Volume and file structure of CD-ROM for information interchange
- 14001 Environmental management systems – Specification with guidance for use
- 14004 Environmental Management Systems – General Guidelines on Principles, Systems and Supporting Techniques
- 14020 Environmental labels and declarations – General principles

- 14024 Environmental labels and declarations – Type I environmental labelling - Principles and procedures
- 14040 Environmental management – Life cycle assessment – Principles and framework

K. National Institute of Standards and Technology:
- BEES (Building for Environmental and Economic Sustainability) Lifecycle Decision Support Tool

L. Southcoast Air Quality Management District:
- 1168 Adhesive and Sealant Applications

M. US Composting Council:
- Seal of Testing Assurance Program

N. US Department of Agriculture:
- Biobased Products – Definitions and Descriptions

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 42 00

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

1.2 DEFINITIONS

A. Permanent Enclosure: As determined by Contracting Officer, permanent or temporary roofing is complete, insulated, and weathertight; exterior walls are insulated and weathertight; and openings are closed with permanent construction or substantial temporary closures.

1.3 USE CHARGES

A. General: Cost or use charges for temporary facilities shall be included in Contract Sum as required.

B. Water Service: Potable Water from the existing water system is seasonally available for use without metering and without payment of use charges. The Contractor's use shall not exceed 25 gallons per day from the hydrant located behind the Park Visitor Center.
   1. Large volume uses of potable water will not be permitted (such as but not limited to filling water trucks, dust control, etc.).
   2. No connections (hoses, etc.) from the hydrant to the project site will be permitted.

C. Electric Power Service:
   1. Electric power from existing NPS system will not be permitted.
   2. Generators using various fuel types (diesel, gasoline, natural gas and propane) will be permitted.
   3. The Contractor is responsible for determining if electric power is available from the Roughrider Electric Cooperative system (800-748-5533). Provide connections and extensions of services as required for construction operations without any additional permit costs. The Contractor must obtain written approval from the Contracting Officer before installation of any temporary service components.

D. Natural Gas Service:
   1. Connections to Natural Gas lines will not be permitted for construction use.

1.4 QUALITY ASSURANCE

A. Electric Service: Comply with National Electrical Contractors Association (NECA), National Electrical Manufacturers Association (NEMA), and Underwriter Laboratories (UL) standards and regulations for

temporary electric service. Install service to comply with National Fire Protection Association (NFPA) 70.

B. Environmental Protection: Provide environmental protection as required by agency(ies) with jurisdiction and as indicated in Contract Documents. Coordinate with requirements of the following:

1. Regulatory Requirements
2. Indoor Air Quality (IAQ) Management
3. Noise and Acoustics Management
4. Environmental Management
5. Construction Waste Management

1.5 PROJECT CONDITIONS

A. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before NPS acceptance, regardless of previously assigned responsibilities.

1.6 SUBMITTALS

A. Submittals shall be in conformance with Contracting Requirements, Specifications, and Division 1 - General Requirements.

B. The Contractor must use the Aquatic Nuisance Species (ANS) Inspection Checklist to notify the North Dakota Game and Fish Department ANS Coordinator at least two weeks prior to the date of equipment arrival. The Contractor is expected to provide multiple notices during project duration for all vehicles, vessels, pumps and equipment that will be used in Waters of the State prior to deployment. The Contractor must include the Contracting Officer on all communications the North Dakota Game and Fish Department. Once equipment is in route and/or on site, a minimum of 72-hour notice must be provided to the Department for scheduling an inspection. To submit the inspection checklist and coordinate an inspection, contact the Department's ANS Coordinator, Ben Holen, via phone at (701)-368-9117 or email bholen@ND.gov.

C. Prior to establishment of any staging, storage and/or laydown areas, or support facilities, or starting clearing and grubbing activities, the Contractor shall submit for review and acceptance of NPS, a Construction Access Plan. The plan at minimum shall include maps/figures, a schedule, and describe the locations and methods to be used to establish and maintain all on-site support facilities including but not limited to:

1. Contractors field office.
2. Employee parking, and/or other employee support facilities.
3. Staging areas, and stockpile locations.
4. Temporary access roads, and proposed haul routes for import and export of construction materials to and from the site.
5. Include any off-site support facilities (acquired separately and controlled by Contractor).

PART 2 - PRODUCTS

2.1 MATERIALS

A. Temporary materials may be new or used, but must be adequate in capacity for required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards.

B. Portable Chain-Link Fencing: Minimum 2 inch, 9-gage, galvanized steel, chain-link fabric fencing; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8 inch OD line posts and 2-7/8 inch OD corner and pull posts, with 1-5/8 inch OD top and bottom rails. Provide galvanized steel bases for supporting posts.

C. Safety Barrier Fence: Orange plastic fence, minimum height, 4 feet.

D. Barrier Tape: Yellow tape Imprinted with "CAUTION: CONSTRUCTION AREA,".

E. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

2.2 TEMPORARY FACILITIES

A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.

1. Prefabricated, job built, or a mobile unit; excellent condition, structurally sound, non-flammable exterior construction, weather tight, minimum 500 square feet.
2. Operable windows and security screens, adjustable ventilation.
3. Restroom (minimum of lavatory and toilet, with exhaust fan if room is windowless).
4. Air conditioner and heater.
5. Interior partition with lockable door to divide office
6. Paneling or freshly painted walls, acoustical tile or painted ceilings, and resilient flooring.
7. Two exterior doors with dead bolts keyed from outside,
8. Minimum 20-square-foot landing and steps at each exterior door.
9. Refrigerator: Under counter, 3.2-cubic-foot volume with 0.8-cubic-foot freezer with dedicated power receptacle.
10. Fire Extinguisher: UL listed and FM (Fire Pump Motors) approved, minimum rating of 2-A:10-B:C, dry chemical.
11. First-Aid Kit: General office/light industrial kit which includes antiseptic wipes, bandages, disposable gloves, tape, instant cold pack, dressing pads, eye pads, scissors, and Acetaminophen tablets.

B. Toilets: Sufficiently lighted and ventilated toilet facilities in weatherproof, sight proof, handicap accessible, sturdy enclosures with privacy locks.

1. Provide separate toilet facilities for men and women.

C. Internet Connection: Furnish, install and maintain a reliable and secure high-speed internet connection (traditional service, 4G and Point-to-Point, or equal) through a Contractor furnished internet service provider. Contractor is responsible for maintenance of this connection and costs associated with internet service provider through substantial completion of this contract.

2.3 EQUIPMENT

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Locate facilities within designated staging areas as shown on drawings.

B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

A. General: Install temporary service or connect to existing service.

1. Arrange with utility company, NPS, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services. Acquire necessary permits.

B. Stormwater Drainage: Provide temporary utilities to remove effluent lawfully.

1. Connect temporary drainage swales to existing ditch systems as directed by the agency(ies) with jurisdiction.

C. Non-potable water for construction is available from the Knife River as directed by the agency(ies) with jurisdiction. Install piping, pumps, and connections as required.

D. Potable water is available on site. Make connections to existing facilities as needed. Facilities must be cleaned and maintained in a condition acceptable to NPS. At Substantial Completion, restore these facilities to condition existing before initial use.

E. Sanitary Facilities: Provide temporary toilets, and wash facilities for use by construction personnel.

1. Place in approved locations secluded from public observation and convenient to work stations. Relocate as work progress requires.
2. Maintain and clean toilet facilities at least weekly.
3. Completely remove sanitary facilities on completion of work.
4. Toilets: Use of existing toilet facilities within the Visitor Center will not be permitted.

F. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.

1. Install electric power service overhead, unless otherwise indicated.

G. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.

1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

H. Telephone Service: No telephone service is available on site for Contractor's use. Make arrangements with Telephone Company and pay costs.

3.3 SUPPORT FACILITIES INSTALLATION

A. General: Comply with the following:

1. Provide incombustible construction for offices, shops, and sheds located within construction area or within 50 feet of building lines. Comply with NFPA 241.
2. Maintain support facilities until near Substantial Completion. Remove structures, equipment, and furnishings, and terminate services after punch list is 100 percent completed or when directed by Contracting Officer. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Contracting Officer.

B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas as indicated on Drawings.

1. Provide dust-control treatment that is nonpolluting and non-tracking. Reapply treatment as required to minimize dust.

C. Traffic Controls: Erect and maintain barricades, lights, danger signals, and warning signs in accordance with Manual on Uniform Traffic Control Devices (MUTCD), Part 6, latest edition. Contractor is responsible for obtaining and adhering to a Road Approach Permit for County Road 37 from Mercer County as referenced in Section 01 31 00 Project Management and Coordination.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.
3. Illuminate barricades and obstructions at night; keep safety lights burning from sunset to sunrise.
4. Adequately barricade and post open cuts in or adjacent to thoroughfares.
5. Protect pedestrian traffic by guardrails or fences.
6. When pedestrian traffic is detoured onto a roadway, provide temporary walkways with protection as required at ends and overhead. For walkways, use lumber running parallel to direction of traffic movement and provide ramps at changes of elevation.
7. Cover pipes, hoses, and power lines crossing sidewalks and walkways with troughs using beveled edge boards.
8. Install Barrier Tape where directed by Contracting Officer. Keep a minimum of two rolls on site.

D. Parking: Use designated areas of existing parking areas shown on drawings for construction personnel. Employee parking shall be confined to the gravel parking lot (North of Awatixa Village – Sakakawea Site).

E. Dewatering Facilities and Drains: Comply with requirements of the agency(ies) with jurisdiction. Maintain Project site, excavations, and construction free of water.

1. Dispose of rainwater in lawful manner that will not result in flooding Project or adjoining properties nor endanger permanent Work or temporary facilities.
2. Remove snow and ice as required to minimize accumulations.

F. Project Identification and Temporary Signs: Provide Project identification and other signs as indicated on Drawings. Fence, barricade, or otherwise block off the immediate work area to prevent unauthorized entry.

1. Provide temporary, directional signs for construction personnel and visitors.
2. Maintain and touchup signs so they are legible at all times.
3. Erect and maintain sufficient detour signs at road closures and along detour routes.

G. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of agency(ies) with jurisdiction.

H. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

I. Temporary Stairs: Provide temporary stairs where ladders are not adequate.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

B. Cleaning of Equipment: Contractor shall ensure prior to moving on to Project Area, equipment, is free of soil, seeds, vegetative matter, or other debris that could contain or hold seeds. Ensure equipment has been pressure washed and is free of exotic species and North Dakota aquatic nuisance species. Equipment shall be considered free of soil, seeds, and other debris when visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools are not required.

C. Upon entering or leaving any water body or while in transit, all watercraft, watercraft motors, watercraft trailers, docks, boatlifts, and recreational and commercial equipment used in fishing, hunting, and watercrafting or construction equipment shall be free of prohibited or regulated aquatic nuisance species, as defined in the state’s aquatic nuisance species list. All equipment is subject to inspection by a North Dakota game and fish department employee. All docks, lifts and related equipment must be dried and left out of the water for at least 21 days before they may be placed in another water.

D. Temporary Erosion and Sedimentation Control: Refer to Section 01 57 23 - Temporary Storm Water Pollution Prevention.

E. Tree and Plant Protection: Refer to Section 01 11 00 - Summary of Work.

F. Pest Control: Follow NPS requirements to minimize attraction and harboring of rodents, roaches, and other pests and perform extermination and control procedures at regular intervals so Project will be free of pests and residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.

G. Site Enclosure Fence: Before construction operations begins, furnish and install safety barrier fencing and barrier tape to prevent people and animals from easily entering site except by entrance gates.

1. Extent of Fence: As indicated on Drawings.
2. Locate vehicular gates to avoid interference with traffic on public thoroughfares.
3. Locate pedestrian entrance gates as required to provide controlled personnel entry.

H. Security Enclosure and Lockup: Install substantial temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.

I. Barricades, Warning Signs, and Lights: Comply with requirements of Manual on Uniform Traffic Control Devices (MUTCD), Part 6, latest edition and agency(ies) with jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

J. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities.

K. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.

1. Responsible Person: Capable and qualified person shall be placed in charge of fire protection. Responsibilities shall include locating and maintaining fire protective equipment and establishing and maintaining safe torch cutting and welding procedures.
2. Tobacco Use, Smoking, and Vaping: Smoking within buildings or temporary storage sheds is prohibited. Smoking is also prohibited where posted, and along trails during periods of high, very high, and extreme fire danger as posted according to the Park's Fire Management Plan.
3. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of NPS, and Agency(ies) with Jurisdiction. Check with Park; many require "burn permits" for welding.
4. Develop and supervise overall fire-prevention and -protection program for personnel at Project Site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
5. Provide equipment necessary to respond to grass fires. Keep shovels, fire extinguishers, water and mobile phones ready for use. Limit vehicle driving on dry grass or brush. Call 911 immediately in the event of fire. Notify Contracting Officer immediately in the event of fire.
6. Hazard Control: Take necessary precautions to prevent fire during construction. Do not store flammable or combustible liquids in buildings. Provide adequate ventilation during use of volatile or noxious substances. Ensure cleanup procedures and storage requirements are followed at close of every work session.

7. Spark Arresters: Equip gasoline or diesel powered equipment used during periods of potential fire hazards or in potential forest and grass fire locations with spark arresters approved by United States Department of Agriculture (USDA) Forest Service.

    a. Written determinations of periods and areas of potential fire hazard will be issued by Contracting Officer.

8. Buildings: Furnish a minimum of one extinguisher for each 1,500 square feet of area or major fraction thereof.

    a. Travel distance from any work station to nearest extinguisher shall not exceed 75 feet.

9. Vehicles and Equipment: Provide one extinguisher on each vehicle or piece of equipment.
10. Service and Refueling Areas: Locate areas a minimum of 50 feet from buildings. Shut down equipment before refueling.
11. Comply with Park specific rules implemented under 36 Code of Federal Regulations (36 CFR) also known as the Requirements of the Superintendent's Compendium (https://www.nps.gov/knri/learn/management/lawsandpolicies.htm).

3.5 OPERATION, TERMINATION, AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. Minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: Maintain facilities in good operating condition until removal.

    1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on 24-hour basis where required to achieve indicated results and avoid possibility of damage.

C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.

D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

    1. Materials and facilities that constitute temporary facilities are property of Contractor. NPS reserves right to take possession of Project identification signs.
    2. At Substantial Completion, clean and renovate permanent facilities used during construction period.

END OF SECTION 01 50 00

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SECTION 01 57 19.12 – NOISE AND ACCOUSTICS MANAGEMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Special requirements for noise and acoustics management during construction operations.

1.2 DEFINITIONS

A. Ambient noise level: The total noise associated with a given environment, being usually a composite of normal or existing sounds from all sources near and far, excluding the noise source at issue.

B. Daytime: The hours from 7 A.M. to 9 P.M. on weekdays and 9 A.M. to 9 P.M. on weekends and holidays.

C. Nighttime: All non-daytime hours.

D. Property line: The real or imaginary line along the ground surface and its vertical extension, which separates real property owned or controlled by one person from contiguous real property owned or controlled by another person or from any public right-of-way or from any public space.

E. Receiving noise area: Any real property where people live or work and where noise is heard, excluding the project or source area.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 NOISE MANAGEMENT

A. Noise Control: Perform construction operations to minimize noise. Perform noise-producing work in less sensitive hours of the day or week as directed by the Contracting Officer CO).

B. Repetitive and/or intermittent, high-level noise: Permitted only during Daytime.

1. Do not exceed the following dB(A) limitations at 50 feet:

Sound Level in dB(A)	Time Duration of Impact Noise
70	More than 12 minutes in any hour
80	More than 3 minutes in any hour

2. Maximum permissible construction equipment noise levels at 50 feet:

EARTHMOVING	dB(A)	MATERIALS HANDLING	dB(A)
Front Loaders	75	Concrete Mixers	75
Backhoes	75	Concrete Pumps	75
Dozers	75	Cranes	75
Tractors	75	Derricks Impact	75
Scrapers	80	Pile Drivers	95
Graders	75	Jack Hammers	75
Trucks	75	Rock Drills	80
Pavers, Stationary	80	Pneumatic Tools	80
Pumps	75	Saws	75
Generators	75	Vibrators	75
Compressors	75		

C. Ambient Noise:

1. Maximum noise levels (dB (decibel)) for receiving noise area at property line shall be as follows:

a. Residential receiving area
Daytime: 65 dB
Nighttime: 45 dB

b. Commercial/Industrial receiving area
Daytime: 67 dB
Nighttime: 65 dB

2. In the event the existing local ambient noise level exceeds the maximum allowable receiving noise level (dB), the receiving noise level maximum for construction operations shall be adjusted as follows:

a. Residential receiving area: Maximum 3 additional dB above the local ambient as measured at property line.

b. Commercial/Industrial receiving area: Maximum 5 additional dB above the local ambient as measured at the property line.

3.2 FIELD QUALITY CONTROL

A. Assess potential effects of construction noise on adjacent neighbors in accordance with ASTM E1686 and as follows:

1. Ambient noise measurement: Measure at property line at a height of at least four (4) feet above the immediate surrounding surface. Average the ambient noise level over a period of at least 15 minutes.

B. Monitor noise produced from construction operations in accordance with ASTM E1780.

END OF SECTION 01 57 19.12

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SECTION 01 57 23 - TEMPORARY STORM WATER POLLUTION PREVENTION

PART 1 - GENERAL

1.1 SUMMARY

A. Federal Regulations for controlling discharges of pollutants (including chemicals, erodible material, and trash) from municipal separate storm sewer systems, construction sites, and industrial activities, were brought under the National Pollution Discharge Elimination System (NPDES) permit process by amendments to the Clean Water Act (CWA), and promulgation of federal stormwater regulations issued by the United States Environmental Protection Agency (USEPA). The USEPA uses amount of ground disturbance as a measure of a project potential to generate pollution from erosion. NPDES Phase I regulates discharges from construction sites that disturb 5 acres or more. NPDES Phase II regulations expand existing General Permit requirements under Phase I to include/regulated discharges from construction sites that disturb land equal to or greater than one (1) acre and less than 5 acres, known as Small Construction Activity. Construction disturbances 1 acre and above typically require a formal NPDES permit and a formal Stormwater Pollution Prevention Plan (SWPPP) must be submitted to Agency(ies) with Jurisdiction for review and approval.

B. National Park Service (NPS) Standards and Guidelines require water quality be protected to ensure compliance with Organic Act. Contractor shall prepare an Under-An-Acre Pollution Prevention Plan (UPPP) for each project resulting in less than 1 acre of soil disturbance or not otherwise subject to requirements of NPDES program. (UPPP Guideline)

C. The work of this section consists of implementing measures to prevent discharges of pollutants, including temporary storm water pollution during construction activities, through compliance with NPDES permit program.

D. Work of this section consists of implementing measures to Temporary Storm Water Pollution during construction activities, through compliance with NPDES permit program.

E. SWPPP details shown on the Drawings constitute minimum requirements for storm water pollution prevention. The Contractor is responsible for compliance with all applicable regulations from Agency(ies) with Jurisdiction.

1.2 DEFINITIONS

A. Definitions pertaining to sustainable development: As defined in ASTM E2114.

B. Environmental Pollution and Damage: The presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances; or degrade utility of the environment for aesthetic, cultural, or historical purposes.

C. National Pollution Discharge Elimination System (NPDES) Phase I: Regulates discharges from construction sites that disturb 5 acres or more.

D. NPDES Phase II: Regulations expand existing General Permit requirements under Phase I to include and regulate discharges from construction sites that disturb land equal to or greater than one (1) acre and less than 5 acres, known as Small Construction Activity.

E. Storm Water Pollution Prevention Plan (SWPPP): Developed and implemented stormwater management measures to protect surface water from pollutants during construction activities disturbing an acre or more in compliance with federal, state, and local requirements for permit approval under NPDES program.

1.3 SUBMITTALS

A. After contract award and before pre-construction conference, prepare and submit:
   1. A SWPPP showing SWPPP satisfies Federal and State NPDES permit requirements.

B. Inspection Schedule: Submit schedule for inspection and monitoring of pollution prevention measures.

C. Inspection Schedule: Submit schedule for inspection and monitoring of storm water pollution prevention measures.

D. Erosion Control Products: Submit manufacturer's product information and installation recommendations for silt fence, filter fabric, erosion control blanket, straw bales, and other materials proposed for use on this project.

1.4 QUALITY ASSURANCE

A. Contractor shall prepare and submit a plan to Contracting Officer for review and concurrence.

B. Orientation Meeting: Contractor shall arrange and conduct an Erosion and Sediment Control meeting/briefing to inform parties, scheduled to be on-site during project, of measures to be implemented for proper erosion and sediment control (may be included as part of Pre-Construction Meeting).

   1. Installation of silt fences, storm drain protection, and other forms of erosion and sediment control shall not begin until after this meeting has occurred.

C. Pollution Prevention Manager: Contractor shall designate Pollution Prevention Manager who will be responsible for implementation, inspection, maintenance, and amendments to approved plan.

   1. Pollution Prevention Manager shall be familiar with Best Management Practices (BMPs) and shall ensure emergency procedures and plan are updated as needed and available for inspection.

   2. When changes in approved plan are required, Pollution Prevention Manager shall prepare and certify an amendment and submit to Contracting Officer for review and concurrence.

D. Pollution Prevention and Erosion Control Manager: Contractor shall designate Pollution Prevention and Erosion Control Manager responsible for implementation, inspection, maintenance, and amendments to approved plan.

1. Pollution Prevention and Erosion Control Manager shall be familiar with temporary storm water pollution prevention procedures and Best Management Practices and ensure emergency procedures and plan are updated as needed and available for inspection.

2. When changes in approved plan are required, Pollution Prevention and Erosion Control Manager shall prepare and certify an amendment and submit to Contracting Officer for review and concurrence.

PART 2 - PRODUCTS

2.1 TEMPORARY STORM WATER POLLUTION PREVENTION PLAN

A. Provide SWPPP which satisfies Federal and State NPDES permit requirements and includes:

1. Site description.
2. Identification and contract information for Pollution Prevention and Erosion Control Manager.
3. Expected sequencing of operations and construction schedule.
4. Weather monitoring procedure.
5. Descriptions and details Best Management Practices for of pollution prevention and erosion controls, including dust control.
6. Pollution prevention and erosion control plans.
7. Controls for other potential onsite storm water pollutants.
8. Applicable specifications.
9. Maintenance and inspection procedures and forms.
10. Description of potential non-storm water discharges at site.
11. Notice of Intent (NOI) form.
12. Notice of Termination (NOT) form.
13. Contractor and Sub-contractor Certification forms.
14. Other record keeping forms and procedures.
15. Housekeeping Best Management Practices, including vehicle wash-down areas, protection of equipment storage and maintenance areas, and sweeping of roadways related to hauling activities.

PART 3 - EXECUTION

3.1 ENVIRONMENTAL PROTECTION

A. Protection of Natural Resources: Comply with applicable regulations and these specifications. Preserve natural resources within project boundaries and outside limits of work performed under this Contract in their existing condition or restore to an equivalent or improved condition as approved by Contracting Officer.

B. Construction Zone: Arrange construction activities to minimize pollution (i.e., erosion, trash, etc.) to maximum practical extent.

1. Clearing, excavation, and grading shall be limited to those areas of project site necessary for construction. Minimize area exposed and unprotected.

2. Clearly mark and delineate limits of work activities.
3. Equipment shall not be allowed to operate outside limits of work or to disturb existing vegetation.
4. Excavation and grading shall be completed during dry season to maximum extent possible.
5. Material shall be stored away from locations where water is present to greatest extent practicable.

3.2 REGULATORY REQUIREMENTS

A. Permits: Contractor shall obtain required NPDES permits resulting in no impacts to scheduled work. Contractor shall account for possibility of significant lead time in scheduling and executing work.

1. Implement requirements of NPDES permit for erosion control due to storm water runoff during construction.
2. Implement good housekeeping practices, inspections and record keeping.
3. Prior to construction, Contractor and Subcontractors shall sign certifications (included in the plan) that they understand requirements of NPDES permit.
4. Subcontractors shall comply with requirements of NPDES under supervision of Contractor.
5. Accepted plan shall comply with terms and conditions of EPA permit.

B. Notice of Intent (NOI): Contractor shall file a Notice of Intent and formal SWPPP as required to the Agency(ies) with Jurisdiction.

C. Notice of Termination (NOT): After Substantial Completion of Work, file a Notice of Termination (NOT) with the Agency(ies) with Jurisdiction.

D. Contracting Officer Notification: Contractor shall notify Contracting Officer in writing and by telephone of these events:

1. Erosion and sediment control meeting/briefing.
2. Following installation of required sediment control structures.
3. Prior to removal of or modification to sediment control structures.
4. Prior to removal of sediment control structures.

3.3 TEMPORARY STORM WATER POLLUTION PREVENTION PLAN

A. Review and Acceptance: Contractor and Contracting Officer will jointly review draft Plan and agree to needed revisions. Contractor shall incorporate revisions, sign, and submit final Plan to Contracting Officer. Final Plan will be the document enforced on the project.

1. Accepted Plan will describe and ensure implementation of practices to be used to reduce pollutants in storm water discharges.
2. Contractor shall maintain current copy of Plan and associated records and forms at jobsite throughout duration of project.
3. Plan shall be available for public inspection and inspection and use of Contracting Officer.
4. Approval of Contractor's Plan will not relieve Contractor of responsibility for compliance with applicable environmental regulations.

B. Implementation: Implement Plan as required throughout construction period and maintain erosion control elements in proper working order.

1. Do not perform clearing and grubbing or earthwork until Plan has been implemented.

C. SWPPP (including inspection forms) and data used to complete the NOI shall be provided to Contracting Officer after Substantial Completion of project.

3.4 SITE INSPECTIONS AND PLAN REVISIONS

A. Inspections: Contractor and Contracting Officer will perform a weekly inspection onsite.

1. Inspection shall include disturbed areas not completely stabilized, areas used for storage of materials, locations where vehicles enter or exit site, and other erosion and sediment controls included in the Plan.
2. Inspections shall be documented.
3. Inspection forms shall be retained onsite in Plan notebook throughout construction period.

B. Plan Revisions: It may be necessary to revise Plan during construction to make necessary improvements, revisions, or to respond to unforeseen conditions noted during construction or site inspections.

1. Plan shall specify mechanism whereby revisions may be proposed by Contractor or Contracting Officer.
2. Contractor and Contracting Officer will jointly review each revision to Plan before changes incorporated and implemented. Contractor will then provide revised copy of Plan to Contracting Officer.
3. Accepted modifications will be implemented within 7 calendar days following date of inspection when deficiencies or necessary corrections are first noted.

C. Negligence: Provide additional temporary erosion and pollution controls made necessary by Contractor's errors or negligence at no additional cost to Government.

3.5 HOUSEKEEPING AND SITE MANAGEMENT

A. Store materials onsite in conformance to Federal, state, local, and manufacturer's regulations and specifications. Use Best Management Practices to minimize risk of materials coming into contact with environmental conditions (i.e. water and wind) that could disperse them.

B. Manage solid waste in conformance to Federal, state, and local regulations. Best Management Practices should be used to minimize risk of materials coming into contact with environmental conditions (i.e. water and wind) that could disperse them.

C. Include a spill prevention and control plan with provisions placed in SWPPP.

D. Manage hazardous waste (including contaminated soil) in conformance to Federal, state, local and NPS regulations and guidelines.

3.6 EROSION CONTROL MEASURES

A. Erosion control measures shall consist of Best Management Practices for storm water discharges, including silt fencing, barrier protectors, straw bales, temporary soil retention blankets, excelsior drainage filters, sediment traps and berms.

B. Berms and excelsior drainage filters shall be used to form sediment traps and control run-on and run-off into other areas, including creeks, streams, marshes, access roads, well areas, and staging areas.

C. Erosion control measures shall be used to contain only direct precipitation in construction zone. Contained water shall be allowed to percolate into ground or drain slowly through drainage filter sediment traps.

D. Earthen sediment traps or holding ponds shall not be used unless accepted by Contracting Officer.

E. Reduce runoff velocity and direct surface runoff around and away from fuel containment, storage, and borrow areas.

F. Divert surface runoff around and away from cut and fill slopes. No new excavation of drainage features other than what is shown on the Drawings shall be allowed without approval by Contracting Officer.

G. Place drainage filters around catch basins to create sediment traps to control run-off from construction area.

H. Excess water used for dust control shall be contained within demolition areas by erosion control measures.

I. Contractor shall prevent deposition of materials onto paved areas. Contractor shall inspect paved areas for deposited materials weekly and remove materials immediately.

J. Furnish, install, maintain, and operate necessary control measures and other equipment necessary to prevent erosion as described in approved SWPPP.

K. Before work begins, sufficient equipment shall be available on site to assure operation and adequacy of erosion control system can be maintained.

3.7 MAINTENANCE OF TEMPORARY FACILITIES

A. Ensure erosion and sediment control structures remain effective throughout excavation and grading operations. Relocate structures as necessary.

B. Inspect control structures after each significant rainfall. Promptly repair breaches which occur.

C. Contractor shall remove entrapped sediment from behind excelsior drainage filter after each storm.

3.8 REPORTING

A. If a discharge occurs or if project receives written notice or order from regulatory agency, Contractor shall immediately notify Contracting Officer and shall file written report to Agency(ies) with Jurisdiction within 7 days of discharge event, notice, or order. Corrective measures shall be implemented immediately following discharge, notice, or order. The report to the Agency(ies) with Jurisdiction shall contain:

1. Date, time, location, nature of operation, and type of discharge, including cause or nature of notice or order.
2. Best Management Practices deployed before discharge event, or prior to receiving notice or order.
3. Date of deployment and type of Best Management Practices deployed after discharge event, or after receiving notice or order, including additional Best Management Practices installed or planned to reduce or prevent re-occurrence.
4. An implementation and maintenance schedule for affected Best Management Practices.

3.9 SEDIMENT DISPOSAL

A. Sediment excavated from temporary sediment control structures shall be disposed on site with general fill, or with topsoil. Sediment shall be allowed to dry out as required before reuse.

B. Contractor shall place sediment removed from traps and other structures where it will not enter a storm drain or watercourse and where it will not immediately reenter the basin.

3.10 REMOVAL OF TEMPORARY STORM WATER POLLUTION CONTROL MEASURES

A. Temporary control measures shall be removed with permission of Contracting Officer within 20 working days after final acceptance of project, and/or once grading is complete and slopes have stabilized.

END OF SECTION 01 57 23

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 67 00 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and environmental requirements.

1.2 DEFINITIONS

A. Products: Items purchased for incorporating into Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes "material," "equipment," "system," and terms of similar intent.

1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, current as of date of Contract Documents.
2. New Products: Items that have not previously been incorporated into another project or facility except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
3. Comparable Product: Product demonstrated and approved through submittal process, or where indicated as a product substitution, to have indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

B. Definitions pertaining to sustainable development: As defined in ASTM E2114.

C. Biobased Materials: As defined in Farm Security and Rural Investment Act, for purposes of Federal procurement of biobased products, "biobased" means a "commercial or industrial product (other than food or feed) composed, in whole or in significant part, of biological products or renewable domestic agricultural materials (including plant, animal, and marine materials) or forestry materials." Biobased materials also include fuels, chemicals, building materials, or electric power or heat produced from biomass as defined by The Biomass Research and Development Act of 2000.

1. Biobased content: Amount of biobased carbon in material or product as a percentage of weight (mass) of total organic carbon in material or product.

D. Chain-of-Custody: Process whereby a product or material is maintained under physical possession or control during its entire life cycle.

E. Environmentally preferable products: Products and services with lesser or reduced effect on the environment in comparison to conventional products and services. Refer to Environmental

Protection Agency's (EPA) Final Guidance on Environmentally Preferable Purchasing for more information.

F. Stewardship: Responsible use and management of resources in support of sustainability.

G. Sustainability: Maintenance of ecosystem components and functions for future generations.

1. Recycled Content Materials: Products containing pre-consumer or post-consumer materials as all or part of their feedstock. Recycled content claim shall be consistent with International Organization for Standardization (ISO) 140001 Standard for the Use of Environmental Marketing Claims.
2. Rapidly Renewable Material: Material made from plants typically harvested within a ten-year cycle.
3. Regional Materials: Materials manufactured and extracted, harvested, or recovered within a radius of 500 miles from Project location.

1.3 SUBMITTALS

A. Record Submittals as specified in – Sustainable Design Close-Out Documentation, submit:

1. Affirmative Procurement Reporting Form. Submit on form at end of this Section, or similar form as approved by Contracting Officer.
2. Submit environmental data in accordance with Table 1 of ASTM E2129 for these products:

   a. Masonry
   b. Retaining wall materials
   c. Cement / Grout
   d. Cleaning Materials
   e. Joint Sealers

3. Material Safety Data Sheets (MSDS): For each product required by OSHA to have a MSDS, submit an MSDS. MSDS shall be prepared within the last five years. Include information for MSDS Sections 1 to 16 in accordance with ANSI Z400.1 and as follows:

   a. Section 1: Chemical Product and Company Identification
   b. Section 2: Composition/Information on Ingredients
   c. Section 3: Hazards Identification
   d. Section 4: First Aid Measures
   e. Section 5: Fire Fighting Measures
   f. Section 6: Accidental Release Measures
   g. Section 7: Handling and Storage
   h. Section 8: Exposure Controls/Person Protection
   i. Section 9: Physical and Chemical Properties
   j. Section 10: Stability and Reactivity Data
   k. Section 11: Toxicological Information. Include data used to determine the hazards cited in Section 3. Identify acute data, carcinogenicity, reproductive effects, and target organ effects. Provide written description of the process used in evaluating chemical hazards relative to preparation of the MSDS.

l. Section 12: Ecological Information. Include data regarding environmental impacts during raw materials acquisition, manufacture, and use. Include data regarding environmental impacts in event of accidental release.
m. Section 13: Disposal Considerations. Include data regarding proper disposal of the chemical. Include information regarding recycling and reuse. Indicate whether or not product is considered to be "hazardous waste" according to United States EPA Hazardous Waste Regulations 40 CFR 261 (Code of Federal Regulations).
n. Section 14: Transportation Information. Identify hazard class for shipping.
o. Section 15: Regulatory Information. Identify federal, state, and local regulations applicable to the material.
p. Section 16: Other Information. Include additional information relative to recycled content, biobased content, and other information regarding environmental and health impacts. Identify the date MSDS was prepared. ASTM D4840 specifies chain of custody documentation for laboratory samples. However, language in ASTM D4840 is consistent with general chain-of-custody procedures for building products.

4. Chain of Custody: Submit chain-of-custody documentation for sustainable forestry for these products:

a. Rough Carpentry
b. Finish Carpentry

1.4 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.

B. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at Project site and prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in undamaged condition; in manufacturer's original sealed container or other packaging system; complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to ensure compliance with Contract Documents. Ensure products are undamaged and properly protected.
5. Contractor is encouraged to obtain materials in biodegradable or recyclable/reusable packaging which uses minimum amount of packaging possible.

C. Storage:

1. Allow for inspection and measurement of quantity or counting of units.

2. Store materials in manner to not endanger Project structure.
3. Store products subject to damage by the elements, under cover in weather tight enclosure above ground, with ventilation adequate to prevent condensation.
4. Store cementitious products and materials on elevated platforms.
5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
7. Protect stored products from damage and liquids from freezing.
8. Store loose granular materials in well-drained area on solid surfaces to prevent mixing with foreign matter.

1.6 PACKAGING

A. Where Contractor has option to provide one of listed products or equal, preference shall be given to products with minimal packaging and easily recyclable packaging as defined in ASTM D5834.

B. Maximize use of source reduction and recycling procedures outlined in ASTM D5834.

C. Provide minimum 45 **percent** post-consumer recycled content and minimum 100 percent recovered fiber content of industrial paperboard in accordance with EPA's Comprehensive Procurement Guidelines and ASTM D5663.

D. Provide minimum 10 **percent** post-consumer recycled content and minimum 100 percent recovered fiber content of carrier board in accordance with EPA's Comprehensive Procurement Guidelines and ASTM D5663.

E. Provide minimum 5 percent post-consumer recycled content and minimum 5 percent recovered fiber content of brown papers (e.g., wrapping papers and bags) in accordance with EPA's Comprehensive Procurement Guidelines and ASTM D5663.

1.7 ENVIRONMENTALLY PREFERABLE PRODUCTS

A. Provide environmentally preferable products to greatest extent possible.

1. To greatest extent possible, provide products and materials with a lesser or reduced effect on the environment considering raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, and/or disposal of the product.
2. Eliminate use of ozone depleting compounds during and after construction where alternative environmentally preferable products are available, consistent with either Montreal Protocol and Title VI or Clean Air Act Amendments of 1990, or equivalent overall air quality benefits that take into account life cycle impacts.
3. Use products meeting or exceeding EPA's recycled content recommendations for EPA-designated products. Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 10% (based on cost) of total value of the materials in project.

1.8 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of Contract Documents.

1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for product specifically endorsed by manufacturer to Owner.
2. Special Warranty: Written warranty required by or incorporated into Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.

B. Special Warranties: Prepare written document containing appropriate terms and identification, ready for execution. Submit draft for approval before final execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: When specified forms are included with Specifications, prepare written document using appropriate form properly executed.
3. Refer to Divisions 2 through 49 Sections for specific content requirements and particular requirements for submitting special warranties.

C. Submittal Time: Comply with requirements in Section 01 77 00 - Closeout Procedures.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products to comply with Contract Documents, undamaged and, unless otherwise indicated, new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types produced and used successfully in similar situations on other projects.
3. Government reserves right to limit selection to products with warranties not in conflict with requirements of Contract Documents.
4. Where products are accompanied by term "as selected," Contracting Officer will make selection.
5. Where products are accompanied by term "match sample," sample to be matched is Governments.
6. Descriptive, performance, and reference standard requirements in Specifications establish "salient characteristics" of products.

B. Product Selection Procedures:

1. Product: Where Specifications name single product and manufacturer, provide named product that complies with requirements or approved equal.

2. Manufacturer/Source: Where Specifications name single manufacturer or source, provide product by named manufacturer or source that complies with requirements or approved equal.
3. Products: Where Specifications include list of names of both products and manufacturers, provide one of the products listed that complies with requirements or approved equal.
4. Manufacturers: Where Specifications include list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements or approved equal.
5. Available Products: Where Specifications include list of names of both products and manufacturers, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
6. Available Manufacturers: Where Specifications include list of manufacturers, provide a product by one of the manufacturers listed, or an unnamed manufacturer, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
7. Product Options: Where Specifications indicate sizes, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide specified product, system, or approved equal.
8. Basis-of-Design Product: Where Specifications name product and include a list of manufacturers, provide specified product or a comparable product by one of the other named manufacturers, or approved equal. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics based on the product named.
9. Visual Matching Specification: Where Specifications require matching an established Sample, select product that complies with requirements and matches Architect's sample. Contracting Officers decision will be final on whether a proposed product matches.

    a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.

10. Visual Selection Specification: Where Specifications include phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.

    a. Standard Range: Where Specifications include phrase "standard range of colors, patterns, textures" or similar phrase, Contracting Officer will select color, pattern, density, or texture from manufacturer's product line that does not include premium items.
    b. Full Range: Where Specifications include phrase "full range of colors, patterns, textures" or similar phrase, Contracting Officer will select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

A. Conditions: Contracting Officer will consider Contractor's request for comparable product when the following conditions are satisfied. If following conditions are not satisfied, Contracting Officer will return requests without action, except to record noncompliance with these requirements:

1. Evidence proposed product does not require revisions to Contract Documents, that it is consistent with Contract Documents and will produce indicated results and is compatible with other portions of Work.
2. Detailed comparison of significant qualities of proposed product with those named in Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
3. Evidence proposed product provides specified warranty.
4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
5. Samples, if requested.

PART 3 - EXECUTION

3.1 PROTECTION AFTER INSTALLATION

A. Provide adequate coverings as necessary to protect installed materials from damage resulting from natural elements, traffic, and subsequent construction. Remove when no longer needed.

END OF SECTION 01 67 00

AFFIRMATIVE PROCUREMENT REPORTING FORM
Recycled Content Materials & Biobased Content Materials

Project Name: _____ Project Number: _____

Contractor Name: _____ License Number: _____

Contractor Address: _

Product	Total $ value provided	Total $ value with recycled content Pre-consumer	Total $ value with recycled content Post-consumer	Total $ value with biobased content	Exempted indicate 1,2,3,4	Comments
Hydraulic Mulch (paper based)						
Hydraulic Mulch (wood based)						
Compost						
Parking Stops (Concrete w/ fly ash, slag cement or low cement content)						
Parking Stops (Plastic/Rubber)						
Concrete with fly ash						
Concrete with slag cement						
Concrete with low cement content						
Plastic lumber						
Other						

CERTIFICATION

I hereby certify the information provided herein is accurate and that the requisition/procurement of all materials listed on this form comply with current EPA standards for recycled/recovered materials content.
The following exemptions may apply to the non-procurement of recycled/recovered content materials:

1. The product does not meet appropriate performance standards.
2. The product is not available within a reasonable time frame.
3. The product is not available competitively (from two or more sources).
4. The product is only available at an unreasonable price (compared with a comparable non-recycled content product.)

Signature: _____ Date: _____

END OF
AFFIRMATIVE PROCUREMENT REPORTING FORM
Recycled Content Materials & Biobased Content Materials

SECTION 01 71 13 - MOBILIZATION AND DEMOBILIZATION

PART 1 - GENERAL

1.1 SUMMARY

A. Mobilization

1. Mobilization shall include obtaining necessary permits; moving onto the site of all material and equipment; and furnishing and erecting plants, temporary buildings, and other construction facilities, as required for the completion of the WORK.

2. Mobilization shall include but not be limited to the following items:

a. Moving on to the site all plant and equipment required.

b. Installing temporary construction utilities and communications devices.

c. Providing storage and staging facilities.

d. Contractor shall provide lift and lift operator for NPS Archeological Staff (MWAC) to inspect tension crack repair excavations.

e. Obtaining all required permits.

f. Posting all OSHA required notices and establishment of safety programs.

B. Demobilization

1. Demobilization shall include moving off the site of all plant equipment, and surplus materials, grading and dressing of the CONTRACTOR'S equipment yard(s), final cleanup and all other project closeout items identified by the Contracting Officer.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 EQUIPMENT CLEANING

A. All equipment mobilized to the site shall be thoroughly cleaned and decontaminated prior to mobilization. Cleaning shall completely remove all soil or plant residue from equipment. Equipment shall be thoroughly decontaminated to prevent transmission of invasive species. Cleaning shall be completed at no additional costs to the OWNERs.

B. CONTRACTOR shall notify Contracting Officer at least 24-hours in advance of mobilization of new equipment to the site. Contracting Officer shall be granted the ability inspect equipment in lay-down areas. Any equipment which, in the opinion of the Contracting Officer, has not be sufficiently decontaminated will be denied access to the site until complete decontamination is complete.

END OF SECTION 01 71 13

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 71 23 - CONSTRUCTION SURVEYING AND STAKING

PART 1 - GENERAL

1.1 WORK SUMMARY

A. This section covers requirements for performing work necessary to complete all construction survey and staking operations and as-built survey required to complete and construct the work to the lines, grades and dimensions as shown on the Drawings in accordance with the Specifications.

B. Provide all labor, materials, tools, equipment, services, and incidentals as necessary to perform the work as described in this section and in accordance with the Contract Documents and Drawings and to the satisfaction of NPS.

1.2 RELATED WORK

A. Attention is directed to the General Requirements and related work specified in other sections includes, but is not limited to:

1. Section 01 31 00 -Project Management and Coordination
2. Section 01 71 13- Mobilization

1.3 DEFINITIONS

A. Not Used.

1.4 SUBMITTALS

A. Submittals shall be in conformance with Contracting Requirements, Specifications, and Division 1 - General Requirements.

B. Contractor shall provide the name, license number, and documentation for the required minimum qualifications of the Land Surveyor to be employed by the Contractor for the Project, prior to any work being completed by the Contractor or Surveyor.

1. No work shall be performed by the Contractor or Surveyor until NPS has reviewed and accepted the licensed Land Surveyor qualifications.

C. Furnish to NPS at least weekly with copies of all field notes, calculations and survey cut sheets used to complete stakeout requirements.

1. Submit control survey establishment, closure calculations and any adjustments made to the control network prior to any construction staking operations.
2. Submit and document any control network discrepancies, errors or potential issues to NPS immediately upon identification.
3. Submit as-staked data and any corrections made to the furnished survey and control data.

D. The Contractor's grade setter shall maintain a complete and accurate log of control, grid coordinates, and locations of the edges of work. The survey notes shall be made available to NPS upon request.

E. If automated machine guidance (AMG) methods are to be used, provide submittals required per Section 152.03 of the FP-24 Standard Specifications.

F. Upon completion of construction an as-built survey shall be submitted to ensure final product is in compliance with the Drawings and Specifications.

1.5 REFERENCES

A. The Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP-24), dated 2024; and published revisions thereto. https://flh.fhwa.dot.gov/resources/specs/
   1. Payment descriptions in the FP-24 Standard Specifications shall not apply.
   2. In case of conflict with the FP-24 Standard Specifications, the most stringent specification shall apply.
   3. "Contracting Officer" as stated in the FP-24 Standard Specifications shall generally be defined as the CEO and General Manager of NPS or the authorized representative for the purposes of these Specifications.
   4. References to Transportation Acquisition Regulations (TAR), and references to Federal Acquisition Regulations (FAR) shall not apply.

B. Applicable ASTM and AASHTO standards.

C. A reference within parentheses to a law or regulation is included in the Contract for convenience only and is not a comprehensive listing of related laws and regulations. Lack of a reference does not indicate no related laws or regulations exist.

D. Where the version of a referenced document is not specified, use the most recent version in effect on the date of the Notice to Bidders.

E. A code not specified as a federal code is a North Dakota code.

F. An agency or a department not specified as a federal or local agency or department is a North Dakota agency or department.

1.6 QUALITY ASSURANCE

A. Conform to the Contract Documents including but not limited to Permits, Technical Conditions, Drawings, and Standard Specifications.

B. Contractor is responsible for the accuracy of stakeout work performed.

C. Provide immediate notification of apparent errors in survey control, agency furnished data, or contract drawings.

D. Correct any errors in stakeout and related work involved performed at own expense.

   1. Any errors shall be notified and documented, in writing to Contracting Officer within 24-hours of identification by the Contractor and/or contractor's surveyor.

E. Field verify all new and existing dimensions affecting the work of this contract before ordering products.

1.7 PROJECT CONDITIONS AND REQUIREMENTS

A. All surveying work performed by, or for the Contractor, in conformance with this section shall be performed by a registered professional Land Surveyor licensed in the State of North Dakota. No work shall be performed by the Contractor or Surveyor until Contracting Officer has reviewed and accepted the licensed Land Surveyor qualifications.

B. The licensed Land Surveyor to be employed by the Contractor shall meet the minimum experience qualifications as stated below:

1. Construction Staking – 5 years continuous experience
2. Topographic Surveying – 5 years continuous experience
3. Submit general scope of work and project descriptions, plus client references, for a minimum of two (2) projects completed within the last five years that are similar in nature to the required work as described herein

C. The Contractor shall employ an experienced grade setter to maintain the construction stakes and ensure that the earthwork portion of the project is being constructed to the design grades.

D. Conform to all labor wage regulations pertaining to workers performing construction staking and surveying services as specified by the State of North Dakota and Federal Prevailing Wage Rates where applicable.

1.8 TOLERANCES

A. Work improvements, shall be constructed to the tolerances as indicated in the Contract Documents for the specified items of work.

B. Construction survey and staking tolerances shall conform to Section 152, Construction Survey and Staking of the FP-24 Standard Specifications.

PART 2 - PRODUCTS

2.1 GENERAL

A. The Contractor’s surveyor will be provided with the northing, easting and elevation of the control points established by the Contracting Officer for basis of project site surveys and design, and existing in the field as shown on the Drawings. In addition, the Contracting Officer will also provide, upon request, to the Contractor’s surveyor the final linework file developed in AutoCAD (Civil 3D, 2021). The Contractor’s surveyor will be required to have compatible access to the said AutoCAD Civil 3D files, in order to use the electronic files. No conversion to other versions of AutoCAD or other software will be provided or allowed.

B. In the event the Contractor's operations destroy any benchmarks or survey control points (existing prior to construction for horizontal and vertical control set by the NPS), the Contractor shall replace such benchmarks and/or control points at his expense, subject to verification by the Contracting Officer. All resetting and verification costs will be borne by the Contractor.

C. If automated machine guidance (AMG) methods are to be used, conform to applicable provisions under Section 152 of the FP-24 Standard Specifications.

PART 3 - EXECUTION

3.1 GENERAL

A. Conform to the applicable provisions of Section 152, Construction Survey and Staking of the FP-24 Standard Specifications.

B. Minimize and/or avoid survey marking paint overspray on new or existing facilities to remain. Marking paint may not be used on trees, stumps or boulders.

C. The Contractor shall be responsible for any and all construction survey and staking operations necessary for the full and complete construction of the Project.

D. The Contractor shall maintain a complete and accurate log of control and survey work for grade checking and construction as it progresses.

E. The Contractor shall be solely responsible for maintenance and protection of the survey stakes or marks (including any control points set by the NPS). The Contractor shall inform any Subcontractors of the importance of the preservation of all survey stakes and markers.

F. Construction staking may be verified by the Contracting Office, at NPS's discretion.

1. The Contracting Office may perform such checks as deemed necessary to verify accuracy of the Contractor's layout work and ensure that the completed work complies with the Drawings and Specifications. The control staking provided by the Contractor shall be preserved and left undisturbed until the Contracting Officer has completed any checks deemed necessary. Staking that has been destroyed or disturbed prior to completion of the Contracting Officer's checks shall be replaced by the Contractor.

3.2 CONSTRUCTION STAKING

A. The Contractor shall furnish labor and surveying equipment necessary for staking, recording of data, and calculations as required to construct the Project work as shown on the Drawings and as specified in the Contract Documents, Standard Specifications and these Technical Specifications.

B. At a minimum conform to the survey and staking requirements specified in Section 152.05 of the FP-24 Standard Specifications, including the following:

1. Clearing and grubbing, and grading limits
2. Temporary access, haul routes, staging areas
3. Slope and reference stakes, and grade-finish stakes for earthwork
4. Rockery walls, and rock slope treatments for stabilization
5. Storm drain culverts, pipelines, and structures (alignments, slopes, elevations)
6. Roadway/trail centerlines, cross sections, subgrades, and finish grades
7. Utility pipelines and fixtures (alignments, slopes, elevations)
8. Concrete curbs, walks, and aprons cross sections, subgrades and finish grades
9. Any other items required for a full, complete and accurately built project

C. All stakes and survey markers will be conspicuously marked with flagging tape or paint by the Contractor. The Contractor shall be responsible for protecting and maintaining all stakes from destruction. In the event that one or more of the stakes are damaged or destroyed, the Contractor will replace the stakes at the expense of the Contractor.

3.3 PROTECTIONS AND CLEANUP

A. The Contractor shall protect survey control points while completing site work and preserve permanent reference points during construction.

B. The Contractor shall promptly report to Contracting Officer the loss, destruction, or relocation of any reference point due to construction improvements or any other reasons.

C. Remove and dispose of flagging, paint, overspray, lath, stakes, and other temporary materials after the project is complete.

END OF SECTION 01 71 23

SECTION 01 73 40 - EXECUTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes general procedural requirements governing execution of Work including:

1. Coordination with utility service providers
2. Construction layout
3. Field engineering and surveying
4. General installation of products
5. Progress cleaning
6. Starting and adjusting
7. Protection of installed construction
8. Correction of the Work

1.2 SUBMITTALS

A. Certificates: Submit certificate signed by land surveyor and/or professional engineer certifying location and elevation of improvements comply with requirements.

B. Landfill Receipts: Submit copy of receipts issued by landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

C. Certified Surveys: Submit two copies signed by land surveyor and/or professional engineer.

D. Quantity Surveys: Submit two copies showing quantities of work performed and actual construction completed in place.

1.3 QUALITY ASSURANCE

A. Land Surveyor Qualifications: Professional land surveyor and/or professional engineer legally qualified to practice in jurisdiction where Project is located and is experienced in providing land-surveying services of kind indicated.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Existing Conditions: Existence and location of site improvements and other construction indicated as existing are not guaranteed.

1. Before beginning work, investigate and verify the existing conditions affecting the Work.

B. Existing Utilities: Existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify existence and location of underground utilities and other construction affecting Work.

1. Before construction, Contractor shall coordinate with NPS and North Dakota One Call (ND-811 or 800-795-0555) in order to verify utilities that effect the work. ND-811 guidelines and regulations shall be followed.
2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

3.2 COORDINATION WITH UTILITY SERVICE PROVIDERS

A. Coordination with Utility Service Providers: Contact following Utility Service providers, sufficiently in advance to avoid delaying the work, to coordinate Contractor's portion of Work, testing requirements, inspections, etc.

1. Electrical: Service Contact: Contact Roughrider Electric Cooperative system (800-748-5533 to coordinate electrical service requirements.
   a. Construction Contractor Responsibilities: Electric power from existing NPS system will not be permitted. Generators using various fuel types (diesel, gasoline, natural gas and propane) will be permitted.
   b. The Contractor is responsible for determining if electric power is available from the Roughrider Electric Cooperative. Provide connections and extensions of services as required for construction operations without any additional permit costs. The Contractor must obtain written approval from the Contracting Officer before installation of any temporary service components.
2. Natural Gas: Connections to natural gas lines will not be permitted for construction use.
3. Water: Potable water from the existing water system is seasonally available from the NPS for use without metering and without payment of use charges. The Contractor's use shall not exceed 25 gallons per day from the hydrant located behind the Park Visitor Center.
   a. Large volume uses of potable water will not be permitting (such as but not limited to filling water trucks, dust control, etc).
   b. No connections (hoses, etc) from the hydrant to the project site will be permitted.

3.3 PREPARATION

A. Field Measurements: Take field measurements as required to fit Work properly. Recheck measurements before installing each product. Where portions of Work are indicated fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying Work.

B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

C. Review of Contract Documents and Field Conditions: Immediately on discovery of need for clarification of the Contract Documents caused by differing field conditions outside control of Contractor, submit request for information to Contracting Officer in accordance with Section 01 31 00 "Project Management and Coordination."

3.4 CONSTRUCTION LAYOUT

A. Verification: Verify layout information shown on Drawings, in relation to the existing benchmarks before proceeding to lay out Work. Notify Contracting Officer promptly if discrepancies are discovered.

B. General: Engage a land surveyor to lay out Work using accepted surveying practices.

1. Establish benchmarks and control points to set location and elevations of construction and elsewhere as needed to locate each element of Project.
2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
3. Inform installers of location, elevation and dimensions to which they must comply.
4. Check location and elevation of every major element as Work progresses.
5. Notify Contracting Officer when deviations from required location and elevations exceed allowable tolerances.

C. Site Improvements: Locate and lay out site improvements, including structures, trail surface, grading, fill and topsoil placement, slopes, and invert elevations.

D. Record Log: Maintain log of layout control work. Record deviations from required locations and elevations. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make log available for review by National Park Service (NPS).

3.5 FIELD ENGINEERING

A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning Work. Preserve and protect permanent benchmarks and control points during construction operations. Controls destroyed by Contractor will be replaced by Contractor at their expense.

1. Existing Monuments: All benchmarks, land corners, and triangulation points, established by other surveys, existing within construction area shall be preserved. If existing monuments interfere with Work, secure written permission before removing them.

B. Benchmarks: Contractor shall utilize and maintain the two existing permanent benchmarks on Project site as shown on the drawings. Additional benchmarks that may be required are the responsibility of the Contractor. Comply with NPS requirements for type and size of benchmark.

1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.

C. Certified Survey: On completion of retaining walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.

3.6 INSTALLATION

A. General: Locate Work and components of Work accurately in correct alignment and elevation, as indicated.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions for best possible results. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.

F. Templates: Obtain and distribute to parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm adequate provisions are made for locating and installing products to comply with indicated requirements.

G. Hazardous Materials: Use products, cleaners, and installation materials not considered hazardous.

H. Quantity surveys: Shall be conducted, and data derived from these surveys shall be used in computing quantities of work performed and actual construction completed and in place.

1. Contractor shall conduct original and final surveys and surveys for any periods for which progress payments are requested. These surveys shall be conducted under direction of a representative of the Contracting Officer, unless Contracting Officer waives requirement in a specific instance. Government shall make such computations as are necessary to determine quantities of work performed or finally in place. Contractor shall make computations based on surveys for any periods for which progress payments are requested.
2. Promptly upon completing a survey, Contractor shall furnish originals of field notes and other records relating to survey or layout of Work to Contracting Officer. Contractor shall retain copies of all such material furnished to Contracting Officer.

3.7 PROGRESS CLEANING

A. General: Clean Project site, work areas, and common areas daily. Coordinate progress cleaning for joint-use areas where more than one Installer has worked. Enforce requirements strictly. Dispose of materials lawfully.

1. Comply with requirements in National Fire Protection Association (NFPA) 241 for removal of combustible waste materials and debris.
2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 degrees Fahrenheit (27 degrees Celsius).
3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

B. Site: Maintain Project site free of waste materials and debris.

C. Work Areas: Clean areas where work is in progress to level of cleanliness necessary for proper execution of Work.

1. Remove liquid spills promptly.
2. Where dust would impair proper execution of Work, broom-clean or vacuum entire work area, as appropriate.
3. Contractor shall provide progress cleaning that minimizes sources of food, water, and harborage available to pests.

D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials not hazardous to health or property and will not damage exposed surfaces.

1. Utilize non-toxic cleaning materials and methods.

a. Comply with Green Seal Standard (GS) 37 for general purpose cleaning and bathroom cleaning.
b. Use natural cleaning materials where feasible. Natural cleaning materials include:

1) Abrasive cleaners: substitute 1/2 lemon dipped in borax.
2) Ammonia: substitute vinegar, salt and water mixture, or baking soda and water.
3) Disinfectants: substitute 1/2 cup borax in gallon water.
4) Drain cleaners: substitute 1/4 cup baking soda and 1/4 cup vinegar in boiling water.
5) Upholstery cleaners: substitute dry cornstarch.

E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect from damage and deterioration at time of Substantial Completion.

G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways.

H. Clean and protect construction in progress and adjoining materials already in place during handling and installation. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

I. Clean and provide maintenance on completed construction as frequently as necessary through remainder of the construction period.

J. Limiting Exposures: Supervise construction operations so that no part of construction completed or in progress, is subject to harmful, dangerous, damaging, or deleterious exposure during construction period.

K. Final Cleaning: At completion of Work, remove remaining waste materials, rubbish, tools, equipment, machinery and surplus materials. Clean exposed surfaces and leave Project clean and ready for occupancy.

1. Provide final cleaning in accordance with ASTM E1971.

3.8 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

3.9 CORRECTION OF THE WORK

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.

1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

B. Restore permanent facilities used during construction to specified condition.

C. Remove and replace damaged surfaces exposed to view if surfaces cannot be repaired without visible evidence of repair.

D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 01 73 40

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 74 19 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for:

1. Salvaging nonhazardous demolition and construction waste.
2. Recycling nonhazardous demolition and construction waste.
3. Disposing of nonhazardous demolition and construction waste.

1.2 DEFINITIONS

A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.

B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.

C. Solid Waste: Garbage, debris, sludge, or other discharged material (except hazardous waste) including solid, liquid, semisolid, or contained gaseous materials resulting from domestic, industrial, commercial, mining, or agricultural operations.

D. Debris: Non-hazardous solid waste generated during construction, demolition, or renovation of a structure which exceeds 2.5 inch (60 millimeter) particle size that is: a manufactured object; plant or animal matter; or natural geologic material (e.g. cobbles and boulders). A mixture of debris and other material such as soil or sludge is also subject to regulation as debris if mixture is comprised primarily of debris by volume, based on visual inspection.

E. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.

F. Environmental Pollution and Damage: Presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances; or degrade utility of environment for aesthetic, cultural, or historical purposes.

G. Garbage: Refuse and scraps resulting from preparation, cooking, dispensing, and consumption of food.

H. Hazardous Materials: Material regulated as a hazardous material in accordance with 49 CFR 173 (Code of Federal Regulations), requires a Material Safety Data Sheet (MSDS) in accordance with 29 CFR 1910.1200, or which during end use, treatment, handling, storage, transportation or disposal meets or has components which meet or have potential to meet the definition of Hazardous Waste in accordance with 40 CFR 261.

I. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.

J. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.

K. Single-use plastic products: Plastic items intended to be disposed of immediately after use, including plastic and polystyrene food and beverage containers, bottles, straws, cups, cutlery, and disposable plastic bags.

1.3 PERFORMANCE REQUIREMENTS

A. General: Project shall minimize creation of construction, deconstruction, and demolition waste to protect and restore natural habitat and resources. Minimize factors contributing to waste such as over packaging, improper storage, ordering error, poor planning, breakage, mishandling, single-use plastic products, and contamination. A Waste Management Plan shall be developed to ensure that existing site and building materials are reused, salvaged, or recycled. Minimize waste disposal in landfills.

B. Salvage/Recycle Requirements: Develop waste management plan resulting in end-of-Project rates for salvage/recycling of **75** percent by weight of total waste generated by the Work. The following waste categories, at a minimum, shall be diverted from a landfill:
   1. Land clearing debris (chipped debris can be used on site for mulch or erosion control)
   2. Clean dimensional wood, palettes
   3. Plywood, OSB (oriented strand board), and particle board
   4. Concrete (can be ground and used for fill on site)
   5. Asphaltic concrete (can be ground and used for fill on site)
   6. Cardboard, paper, packaging, newsprint
   7. Metals (from banding, stud trim, piping, rebar, roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze)
   8. Gypsum drywall - unpainted
   9. Non-hazardous paint and paint cans
   10. Beverage containers: Aluminum, glass, and plastic containers
   11. Insulation
   12. Ceiling grid and tiles
   13. Ductwork
   14. Wiring
   15. Other mixed construction and demolition waste as appropriate.

C. Existing items and material to be removed during deconstruction/demolition phase shall be reused in construction phase of the Project. Items that cannot be reused shall be recycled. Items considered for reuse must be in refurbishable condition and must meet quality standards set forth in these specifications. Contractor shall ensure quality of the item(s) in question will meet or exceed accepted industry or trade standards for first quality commercial grade application. During construction, deconstruction, or demolition Contracting Officer (CO) may designate other objects or materials for reuse.

D. Salvage/Recycle Requirements: Government goal is to salvage and recycle as much nonhazardous demolition and construction waste as possible including the following materials:

E. Salvage/Recycle Requirements: Government goal is to salvage and recycle as much nonhazardous demolition and construction waste as possible. Government has established minimum goals for the following materials:

1. Cleared Vegetation: Stockpile debris for application subsequent to topsoil placement.

2. Timer: For trees larger than 2 inches in diameter, yard timber and haul to location approved by Contracting Officer. Salvaged timber shall remain the property of the Contracting Officer.

3. Topsoil: Strip and windrow or stockpile topsoil for re-application during surface restoration.

4. Existing Asphalt Pavement: Grind and strip asphalt pavement for reuse as road base during surface restoration.

5. Existing Road Base: Strip and reuse as recycled road base during surface restoration.

6. Existing Concrete Structures: For structures to be removed, dispose of concrete offsite. Demolish, crush and bury structures in-place where called for on the Drawings.

7. Existing Water Main and Appurtenances: Dispose of pipe, meters, hydrants, fittings, valves and all other existing water main appurtenances to be removed at a metal recycling facility.

8. Scrap metal can be recycled following 40 CFR 261.4.

F. If waste materials encountered during deconstruction/demolition or construction phase are found to contain lead, asbestos, polychlorinated biphenyls (PCBs), (such as fluorescent lamp ballasts), or other harmful substances, they are to be handled and removed in accordance with local, state, and federal laws and requirements concerning hazardous waste.

1.4 SUBMITTALS

A. Waste Management Plan: After award of contract and prior to scheduled Pre-Construction Conference, Contractor shall submit a draft Waste Management Plan to Contracting Officer for approval. Submit [3] copies of plan. Revise and resubmit Plan as required by Contracting Officer. Approval of Contractor's Plan will not relieve Contractor of responsibility for compliance with applicable environmental regulations.

B. Progress Documentation: Supplemental to Waste Management Plan, document solid waste disposal, diversion, and cost/revenue analysis and submit completed worksheet on a monthly basis. See Project Waste Management Plan Worksheet Sample, attached to the end of the Division 1 Specifications, and report totals to date for column headings.

C. Waste Reduction Calculations: Before request for Substantial Completion, submit three copies of calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.

D. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.

E. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.

F. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

G. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

H. Qualification Data: For Waste Management Coordinator.

I. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating refrigerant that was present was recovered and recovery was performed according to Environmental Protection Agency (EPA) regulations. Include name and address of technician and date refrigerant was recovered.

J. Progress payment requirements:

1. With each Application for payment, submit an updated Project Waste Management Plan worksheet for solid waste disposal and diversion.
2. With each Application for Payment, submit manifests, weight tickets, receipts, and invoices specifically identifying the Project and waste material.

K. Closeout Submittals

1. With Closeout Submittals, submit a summary of a Project Waste Management Plan worksheet for solid waste disposal and diversion.

1.5 QUALITY ASSURANCE

A. Waste Management Coordinator Qualifications: Experienced firm, with record of successful waste management coordination of projects with similar requirements, that employs a LEED™-Accredited Professional, certified by USGBC, as waste management coordinator.

B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

C. Waste Management Meeting: Conduct separate meeting or cover in Pre-Construction Conference and comply with requirements in Section 01 31 00 - Project Management and Coordination. Review methods and procedures related to waste management including:

1. Review and discuss waste management plan including responsibilities of Waste Management Coordinator.
2. Review requirements for documenting quantities of each type of waste and its disposition.
3. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
4. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.

5. Review waste management requirements for each trade.

PART 2 - PRODUCTS

2.1 WASTE MANAGEMENT PLAN

A. General: Develop plan consisting of waste identification and waste reduction work plan. Indicate quantities by weight or volume but use same units of measure throughout waste management plan.

B. Waste Identification: Indicate anticipated types and quantities of demolition, site-clearing and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.

C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.

1. Salvaged Materials for Reuse: For materials salvaged and reused in Project, describe methods for preparing salvaged materials before incorporation into the Work.
2. Salvaged Materials for Sale: For materials sold to individuals and organizations, include list of names, addresses, and telephone numbers.
3. Salvaged Materials for Donation: For materials donated to individuals and organizations, include list of names, addresses, and telephone numbers.
4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
6. Handling and Transportation Procedures: Include method used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.
7. Reduction of single-use plastic products: Include methods for water distribution to include bottle refilling stations if available for personnel.

D. Cost/Revenue Analysis: Indicate total cost of waste disposal as if there was no waste management plan and net additional cost or net savings resulting from implementing waste management plan. Include:

1. Landfill tip fees per ton.
2. If diverted, tip fee savings from landfill diversion.
3. Costs of recycling, salvage, or reuse.
4. Revenue from recycling, salvage, or reuse.
5. Total cost or savings from diversion. (Calculate by using tip fee savings and subtracting costs of recycling or adding revenue from recycling.)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

A. General: Implement waste management plan as approved by Contracting Officer. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during entire duration of Contract.

B. Waste Management Coordinator: Engage waste management coordinator responsible for implementing, monitoring, and reporting status of waste management work plan. Coordinator shall be present at Project site full time for duration of Project.

C. Contractor shall establish contacts with local recycling and reuse companies to set up lines of responsibility. Contractor shall be responsible for coordination in terms of identifying materials, pickup schedules, and standard quality for recycled materials.

D. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.

1. Distribute waste management plan to everyone concerned within three days of submittal return.
2. Distribute waste management plan to entities when they begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.

E. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

F. Separation facilities:

1. Contractor shall designate and Contracting Officer shall approve specific area or areas to facilitate separation of materials for potential reuse, salvage, recycling, and return.
2. Place waste and recycling bins near each other, and close to point of waste generation but out of traffic pattern.
3. Keep recycling and waste bin areas neat, clean, and clearly marked in order to avoid co-mingling of materials.
4. Protect bins during non-working hours from off-site contamination.
5. Check garbage dumpsters periodically for recyclables being thrown away and undocumented materials that could be recycled.

G. Materials handling procedures: Material to be recycled shall be protected from contamination and shall be handled, stored, and transported in a manner that meets requirements set by designated facilities for acceptance. Establish defined area for operations of each trade, especially woodcutting so off-cuts are kept in one area and can be sorted by dimension for future reuse.

3.2 SALVAGING DEMOLITION WASTE

A. Salvaged Items for Reuse in the Work:

1. Clean salvaged items.

2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in secure area until installation.
4. Protect items from damage during transport and storage.
5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.

B. Salvaged Items for Sale and Donation: Not permitted on Project site.

C. Salvaged Items for Governments Use:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Allow for inspection if necessary.
4. Store items in secure area until delivery to Government.
5. Transport items to storage area.
6. Protect items from damage during transport and storage.

3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

A. General: Recycle paper and beverage containers used by on-site workers.

B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to the Contractor.

C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to maximum extent practical.

1. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.

   a. Inspect containers and bins for contamination and remove contaminated materials if found.

2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
4. Store components off ground and protect from weather.
5. Remove recyclable waste off Government property and transport to recycling receiver or processor.

3.4 RECYCLING DEMOLITION WASTE

A. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.

1. Pulverize concrete to maximum 4 inch size.

B. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.

3.5 RECYCLING CONSTRUCTION WASTE

A. Packaging:

1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in dry location.
2. Polystyrene Packaging: Separate and bag materials.
3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

B. Site-Clearing Wastes: Chip brush, branches, and trees at landfill facility.

C. Wood Materials:

1. Clean Cut-Offs of Lumber: Grind or chip into small pieces.
2. Clean Sawdust: Bag sawdust not containing painted or treated wood.

3.6 DISPOSAL OF WASTE

A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose in landfill or incinerator acceptable to authorities having jurisdiction.

1. Except as otherwise specified, do not allow waste materials to accumulate on-site.
2. Remove and transport debris in manner preventing spillage on adjacent surfaces and areas.

B. Burning: Do not burn waste materials.

C. Disposal: Transport waste materials off Government property and legally dispose of them.

END OF SECTION 01 74 19

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 77 00 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for contract closeout, including:

1. Project Record Drawings
2. Closeout Submittals
3. Substantial Completion and Final Inspection
4. Permit Closure
5. Final Acceptance of the Work
6. Warranties

1.2 PROJECT RECORD DRAWINGS

A. Maintain one complete full-size set of contract drawings and one full-size set of vendor-supplied drawings. Clearly mark changes, deletions, and additions using National Park Service (NPS) drafting standards to show actual construction conditions. Show additions in red, deletions in green and special instructions in blue.

B. Keep record drawings current. Make record drawings available to Contracting Officer for inspection at the time of monthly progress payment requests. If project record drawings are not current, Contracting Officer may retain an appropriate amount of progress payment.

C. Submit complete record drawings on completion of total project. Include shop drawings, sketches, and additional drawings to be included in final set, with clear instructions showing the location of these drawings.

1.3 CLOSEOUT SUBMITTALS

A. A list of closeout requirements has been attached at the end of the Division 1 Specifications for your convenience. The intent is to provide an overall summary of requirements and not a comprehensive list. Terms and conditions of the contract require satisfaction of requirements of individual specification sections regardless of what is shown on the list. Submit the following before requesting final inspection:

1. Specific warranties, guarantees, workmanship bonds, final certifications, and similar documents.
2. Project Record Documents, operation and maintenance manuals, final completion construction digital images recorded on CD-R (compact disc-recordable) or DVD-R (digital video disc-recordable) or other electronic transfer device approved by the Contracting Officer with index and descriptions, and similar final record information.

3. Environmental Record Documents: As specified in Divisions 01 57 23 - Temporary Storm Water Pollution Prevention and as follows:

   a. Copies of SWPPP inspections and documentation shall be submitted to the Contracting Officer.
   b. Material Safety Data Sheet (MSDS) Data: As specified in Section 01 67 00 – Product Requirements.
   c. Affirmative Procurement Reporting Form: As specified in Section 01 67 00.
   d. Environmental Product Data: As specified in Section 01 67 00.
   e. Chain-of-Custody Data: As specified in Section 01 67 00.

4. Terminate and remove temporary facilities, mockups, construction tools, and similar elements from Project site, and complete final cleaning requirements. including touchup painting.
5. Touch up and repair and restore marred exposed finishes caused by the Contractor or Contractors Subcontractor personnel in operation, adjustment, and maintenance of products.

1.4 FINAL INSPECTION, SUBSTANTIAL COMPLETION AND ACCEPTANCE PROCEDURES

A. Request final inspection in writing when project or designated portion of project is substantially complete. Contracting Officer will proceed with inspection within 10 days of receipt of written request or will advise Contractor of items that prevent project from being substantially complete.

B. If work is determined substantially complete, following final inspection, Contracting Officer will prepare Punch List and issue a Letter of Substantial Completion.

C. If work is not determined substantially complete following final inspection, Contracting Officer will notify Contractor in writing. Contractor shall request new final inspection after completing work. Re-inspection costs may be charged against Contractor in accordance with Inspection of Construction contract clause.

D. Contractor shall complete Punch List within 30 calendar days, documented weather permitting.

E. If Contractor completes items of work on Punch List and contractually required items, Contracting Officer will issue Letter of final acceptance of work.

F. If Contractor fails to complete work within the time frame, Contracting Officer may correct work with an appropriate reduction in contract price or charge for re-inspection costs in accordance with Inspection of Construction contract clause.

1.5 PERMIT CLOSURE AND TRANSFER

A. After substantial completion and Punch List completion, permits shall be closed and documented by Agency(ies) with Jurisdiction for the permit.

B. If responsibility for permits is to be transferred to Park, Park shall be informed of permit provisions completed and responsibilities transferring to Park staff.

1.6 WARRANTIES

A. Submittal Time: Submit written warranties on request of Contracting Officer for designated portions of Work where commencement of warranties other than date of Substantial Completion is indicated.

B. Organize warranty documents into an orderly sequence based on table of contents of Project Manual.

1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2 by 11 inch paper.
2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify product or installation. Provide typed description of product or installation, including name of product and name, address, and telephone number of Installer.
3. Identify each binder on front and spine with typed or printed title "WARRANTIES," Project name, and name of Contractor.
4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF (portable document format) file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.

PART 2 - PRODUCTS

2.1 MATERIALS

A. See Division 01 Specification Section 01 73 40 - Execution for information on cleaning agents.

PART 3 - EXECUTION

3.1 FINAL CLEANING

A. General: Conduct final cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B. Cleaning: Comply with manufacturer's written instructions.

1. Complete following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:

a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
c. Rake grounds that are neither planted nor paved to smooth, even-textured surface.
d. Remove tools, construction equipment, machinery, and surplus material from Project site.
e. Remove snow and ice to provide safe access to Project.

f. Remove labels that are not permanent.
g. Touch up, repair, and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
h. Leave Project clean and ready for occupancy.

C. Waste Disposal: Comply with requirements of Section 01 74 19 - Construction Waste Management and Disposal.

END OF SECTION 01 77 00

Knife River Indian Villages National Historic Site – PMIS 257081

SECTION 01 90 00 - ACCEPTANCE OF WORK

PART 1 - GENERAL

1.1 CONFORMITY WITH CONTRACT

A. Follow the requirements of Federal Acquisition Register (FAR) Clause 52.246-12 Inspection of Construction.

1. References to standard test methods of AASHTO, ASTM, GSA, and other recognized standard authorities refer to the methods in effect on the date of solicitation for bids.
2. Perform work according to the contract requirements. Perform all work to the lines, grades, cross-sections, dimensions, and processes or material requirements shown on the plans or specified in the contract.
3. Incorporate manufactured materials into the work according to the manufacturer's recommendations or to these specifications, whichever is stricter.
4. Plan dimensions and contract specification values are the values to be strived for and complied with as the design values from which any deviations are allowed. Perform work and provide material that is uniform in character and reasonably close to the prescribed value or within the specified tolerance range. The purpose of a tolerance range is to accommodate occasional minor variations from the median zone that are unavoidable for practical reasons.
5. The Government may inspect, sample, or test all work at any time before final acceptance of the project. When the Government tests work, copies of test reports are furnished to the Contractor upon request. Government tests may or may not be performed at the work site. If Contractor testing and inspection is verified by the Government, the Contractor's results may be used by the Government to evaluate work for acceptance. Do not rely on the availability of Government test results for process control.
6. Acceptable work conforming to the contract will be paid for at the contract price. Four methods of determining conformity and accepting work are described in Subsections 1.2 to 1.4 inclusive. The primary method of acceptance is specified in each Section of work. However, work may be rejected at any time it is found by any of the methods not to comply with the contract.
7. Remove and replace work that does not conform to the contract, or to prevailing industry standards where no specific contract requirements are noted, at no cost to the Government.
8. As an alternative to removal and replacement, the Contractor may submit a written request to:

    a. Have the work accepted at a reduced price; or
    b. Be given permission to perform corrective measures to bring the work into conformity.

9. The request must contain supporting rationale and documentation. Include references or

data justifying the proposal based on an evaluation of test results, effect on service life, value of material or work, quality, aesthetics, and other tangible engineering basis. The Contracting Officer will determine disposition of the nonconforming work.

10. When standard manufactured items are specified (such as fence, wire, plates, rolled shapes, pipe conduits, etc., that are identified by gauge, unit mass, section dimensions, etc.), the identification will be considered to be nominal masses or dimensions. Unless specific contract tolerances are noted, established manufacturing tolerances will be accepted.

1.2 VISUAL INSPECTION

A. Acceptance is based on visual inspection of the work for compliance with the contract and prevailing industry standards.

1.3 CERTIFICATION

A. For material manufactured off-site, use a manufacturer with an ISO 9000 certification or an effective testing and inspection system. Require the manufacturer to clearly mark the material or packaging with a unique product identification or specification standard to which it isproduced.

B. Material accepted by certification may be sampled and tested at any time. If found not in conformance with the contract, the material will be rejected whether in place or not.

C. One of the following certifications may be required:

1. Production certification. Material requiring a production certification is identified in the Acceptance Subsection of each Section. Require the manufacturer to furnish a production certification for each shipment of material. Include the following with each production certification:
    a. Date and place of manufacture;
    b. Lot number or other means of cross-referencing to the manufacturer’s inspection and testing system; and
    c. Substantiating evidence that the material conforms to the contract quality requirements as required by FAR 46.105(a)(4), including:
        1) Test results on material from the same lot and documentation of the inspection and testing system;
        2) A statement from the manufacturer that the material complies with all contract requirements; and
        3) Manufacturer’s signature or other means of demonstrating accountability for the certification.

2. Commercial certification. When a certification is required, but not a production certification, furnish one commercial certification for all similar material from the same manufacturer.
3. A commercial certification is a manufacturer's or Contractor's representation that the material complies with all contract requirements. The representation may be labels, catalog data, stamped specification standards, or supplier's certifications indicating the material is produced to a commercial standard or specification.

1.4 MEASURED OR TESTED CONFORMANCE

A. Provide all necessary production and processing of the work and control performance of the work so that all of the work complies with the contract requirements.

B. Results from inspection or testing shall have values within the specified tolerances or specification limits. When no tolerance values are identified in the contract, the work will be accepted based on customary manufacturing and construction tolerances.

1.5 PARTIAL AND FINAL ACCEPTANCE

A. Maintain the work during construction and until the project is accepted. Damage caused by the Contractor prior to final acceptance of the entire project will be repaired at the Contractor's expense. See FAR Clause 52.236-11 Use and Possession Prior to Completion.
   1. Partial acceptance. When a separate portion of the project is completed, a final inspection of that portion may be requested. If the portion is complete and in compliance with the contract, it may be accepted. If accepted, the Contracting Officer will relieve the Contractor of further responsibility for maintenance of the completed portion. Partial acceptance does not void or alter any of the terms of the contract.
   2. When public traffic is accommodated through construction and begins using sections of roadway as they are completed, continue maintenance of such sections until final acceptance.
   3. Final acceptance. When notified that the entire project is complete, an inspection will be scheduled. If all work is determined to be complete, the inspection will constitute the final inspection and the Contractor will be notified in writing of final acceptance as of the date of the final inspection. Final acceptance relieves the Contractor of further responsibility for the maintenance of the project.
   4. If the inspection discloses any unsatisfactory work, the Contracting Officer will provide to the Contractor a list of the work that is incomplete or requires correction. Immediately complete or correct the work. Furnish notification when the work has been completed as provided above.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 90 00

KNIFE RIVER ELBEE BEND BANK STABILIZATION
KNRI 257081

DIVISION 01 SUPPLEMENTS

ND Game and Fish Department ANS Inspection Checklist
Project Waste Management Plan Worksheet
Closeout and Operation & Maintenance Requirements
2025 Archeological Protection Plan

Marine Equipment - Vessel or Dive Equipment										
Company	Vessel or Equipment	Description	Unique ID	Last Known Location (City, State)	Last Known Water Body Location	Last Known Time in Water	Date Last Cleaned	Cleaning Procedures	Pictures Available (Y or N)	Estimated Date of Arrival Onsite

Project Waste Management Plan Worksheet Sample

National Park Service (NPS) - Denver Service Center (DSC) | 10-13-21

	A	B	C	D	E	F	G	H	I	J
Material	**Quantity Recycled (in tons)**	**Quantity Salvaged or Reused (in tons)**	**A + B = Total Quantity Diverted from Landfill**	**Quantity to Landfill (in tons)**	**C + D = Total Quantity Generated (in tons)**	**Tip Fee/Ton at Landfill**	**C x F = Tip Fee Savings resulting from Landfill Diversion**	**Cost of Recycling (R), Salvage (S), or Reuse (Re)** (Specify R, S, or Re)	**Revenue from Recycling (R), Salvage (S), or Reuse (Re)** (Specify R, S, or Re)	**G - H + I = Total Cost (-) or Savings (+) from Diversion**
Asphalt/Concrete										
Brick/Masonry/Tile										
Building Materials (doors, windows, fixtures, shingles, lumber, insulation, sheet goods, etc.)										
Carpet										
Carpet Padding, Foam Only										
Cardboard										
Ceiling Tile										
Drywall										
Glass										
Scrap Metal Aluminum										
Copper										
Steel										
Unpainted Wood & Pallets										
Yard Trimmings, Brush, Trees, Stumps, etc.										
Garbage/Trash										
Other										
Column Totals										
	Total Quantity Recycled	Total Quantity Reused or Salvaged	Total Quantity Diverted from Landfill	Total Quantity to Landfill	Total Quantity Generated		Tip Fee Savings from Diversion	Total Cost of Recycling, Salvage, or Reuse	Revenue from Recycling, Salvage, or Reuse	Total Cost (-) or Savings (+) from Diversion

Percentage Diverted = _____ (C divided by E from Column Totals). Should meet 60% diversion goal.

Closeout and Operation & Maintenance (O&M) Requirements

KNRI 257081

National Park Service (NPS) - Denver Service Center (DSC) | 1-27-21

Topic	Specification Section	Requirement	Submittal Date	Completed	Received by Park
Project Record Drawings	01 77 00	Final Record Drawings			
	01 32 33	Project Record Document - Photo Documentation			
	01 77 00	Comply with Div 01 drawing requirements; Maintain a Field Set of documents			
System Demonstration and Training					
Tools Spare Parts Equipment					
Extra Stock					
Reports	Various	Project Record Testing Reports (Topsoil, Rock, Earthwork, ect)			
	Various	Project Record Material Certifications (Topsoil, Rock, Earthwork, ect)			
	01 32 33	Project Photographic Documentation			
	01 77 00	Environmental Record Documents			
Keys & Keying Schedule					
O&M Data Warranties Guarantees	31 37 00	1- calendar year for ECB and Rock Slope Warranty Period			
	32 92 19	1- calendar year permanent planting warranty			

Archeological Protection Plan
For Elbee Bend Stabilization
Knife River Indian Villages National Historic Site

Midwest Archeological Center

January 22, 2025

PMIS 257081 PEPC 108875

Introduction

The Knife River Indian Villages National Historic Site (KNRI) was established with three distinct purposes: preservation of historic and archeological resources; interpretation of the site's historic and archeological resources; and study of those resources for the benefit of the public. Of the 69 archeological sites at the park 44 are listed on the National Register of Historic Places as an archeological district. Among these the Big Hidatsa Village Site has been designated a National Historic Landmark.

Project Background

Riverbank erosion has been an ongoing problem since park establishment, and archeologists have identified flooding and erosion as the greatest threats to the park's archeological resources. The Knife River runs the length of the 1,758-acre park and is a tributary to the Missouri River downstream of the Garrison Dam Project. It is estimated that significant amounts of riverbank along the Knife River running through the park have been lost over the past few decades, leading to the loss of archeological and historic resources. Village remnants and archeological sites adjacent to the Knife River have experienced measurable erosion.

In 2018, the park completed an Archeological Resources Management Plan/Environmental Impact Statement (ARMP/EIS) to address threats to archeological resources, including riverbank erosion (PEPC # 34314). The plan identified a suite of treatment options for riverbank erosion and prioritized archeological sites based on importance and level of risk to inform management decisions. The Elbee Village located in the Elbee Bend of the river was identified as the highest priority riverbank stabilization need for the park. In addition to fundamental park resources, erosion in the Elbee Bend threatens County Road 37, park fencing, and utility poles.

The proposed project, first designed by the U.S. Army Corps of Engineers (USACE), then redesigned by contracted A&E firm, Stantec, will stabilize the Elbee Bend of the Knife River, an important step in the implementation of the ARMP/EIS.

The project is anticipated to include the following features (Figures 1-3):
• Installation of longitudinal peak stone toe protection (LPSTP) throughout the bend,
• An earthen embankment constructed behind the structure at a slope of 3H:1V,
• A bench incorporated to facilitate construction and reduce hydraulic shear stresses as discharge increases,
• Riverward of the rising bench, a layer of soil riprap (3.75 ft deep) installed to greater protect the lower portions of the site, which are at greater risk of bank erosion,
• Slope landward of the bench fitted with erosion control blankets and seeded to establish native vegetation post construction,
• Two small drainage swales (resultant of head-cutting due to overbank flooding) will be graded in the embankment at the northern half of the site to facilitate proper drainage. A regraded lower depression will lead to a rock channel that runs down the embankment,
• At the upstream tie in point, a 10-ft wide trench of buried rock (which consists of void filled riprap) will be installed at the upstream end of the project to address flanking risk,
• A transition to a simple revetment at the existing grade at the downstream end of the project,
• Excavation of the proposed channel/floodplain cross section and alignment the new river

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course will incorporate sedimentation management measures during construction, and shoreline revegetation post-construction to minimize sediment transport once the embankment is constructed,

• A subsurface void filled riprap toe trenched into the riverbed to mitigate scour forces at the toe of the LPSTP,

• Typical channel cross section metrics extending from the embankment toe to the inside bend are provided below:

- Low flow channel ~95 ft wide. Left bank rises ~3 ft at a 4:1 slope up to an elevation that contains the annual flood recurrence interval of approximately 1-year flows.
- The primary bench is 65 ft wide with a cross slope of 2%– creating opportunity for wetland creation. The elevation of this bench is based on the elevations where previously delineated wetlands exist within the Elbee Bend.
- The cross slope then rises ~4.5 ft at a 4:1 slope up to a secondary bench (25 ft wide). This bench is set at the elevation that captures the annual flood recurrence interval of approximately 2-year water surface elevation, considered the channel forming discharge.
    - In general, bank-full discharge in stable channels has been found to correspond to an annual flood recurrence interval of approximately 1 to 2.5 years (Leopold 1994).
- The proposed cross section then rises at a slope of 3:1 to tie into the existing upper terrace and activate the floodplain.

Cultural Resources Background

The Elbee Village site (32ME408) is a significant, multi-component archeological site, most prominently represented by an occupation dating to 1400-1500 CE. The part of the site with the most evidence for a dwelling was found during compliance work completed in 1978 for installation of the driveway leading to the parking lot and river at the southern end of the site (Ahler et al. 1984; Figure 4). This work was cut short by a construction deadline and not as much of the site was excavated as researchers desired at that time. This southern area was revisited in 2010 by the University of North Dakota (UND), showing that there are many intact deposits remaining. Test units were excavated in the northern parts of the site most subject to erosion in 2003 (Toom 2004) and 2010 (Toom 2012), finding less evidence of earthlodge features, but still encountering hundreds of artifacts indicating a habitational presence during the Plains Village period (900-1720 CE). Special attention was paid to an area with a cluster of thermal features found at the northern end of the bend (Roos 2010; Sturdevant 2009; Toom 2012; Weiland 2023, 2024; Figures 5-9), attempting to salvage these as they were exposed in the cutbank by flooding events (Sturdevant 2009) and impending wasting due to the tension cracks behind them.

Additionally, there has been a series of geophysical investigations at the Elbee Village site and the small site of unknown significance just to the north of Elbee, known as the Karishta site (32ME466) (DeVore 2008; Volf 2002; Wiewel 2024; Weymouth 1986; Figure 10). Anomalies found in these magnetometry surveys show there is high research potential throughout the site, including areas that are likely to be lost due to the erosion of the cutbank. Some effort has been made for reconnaissance of these potential features nearest to the cutbank (Roberts 2021; Roos 2010; Toom 2012), but there is limited capacity to test all of these. Magnetograms from these earlier studies using older equipment are low-resolution and difficult to interpret as a result. Therefore, new geophysical survey was conducted at Elbee, before the stabilization process (Wiewel 2024).

The Elbee Village site is a unique archeological site placed on the National Register of Historical Places as a part of the Knife River Indian Villages Historic Site Archeological District. The Elbee site has potential to answer some long-standing research questions regarding chronology in the area and the coalescence of Plains cultural traditions. Yet, the Elbee site condition is listed as poor because of erosion, burrowing mammals, vegetation, and infrastructure (ARMP/EIS 2018). In the Archeological Resources Management Plan/Environmental Impact Statement (2018, Table 2-4) for KNRI, Elbee is tied at the top with the Big Hidatsa site (32ME12) in site prioritization which combines scores for historical importance and risk among all 69 archeological sites ranked at the park. Archeological districts are placed on the National Register under Criterion D of the National Historic Preservation Act, which preserves sites for their research potential. This stabilization project is imperative because it will reduce the risk to the research potential of this very important archeological site.

Objectives

The objective of this Archeological Protection Plan is to provide stakeholders and the contractor with a general plan to protect archeological resources that takes into consideration the multiple contingencies of the project's undertakings. It is to be linked in Section 106 consultation with the North Dakota State Historic Preservation Office (SHPO), Tribal Historic Preservation Offices (THPOs) and any agreements between those offices and the NPS. It also details for Stantec and any subcontractors conducting the stabilization what stipulations are in place for this very sensitive project. Listed below are activities that are in the current stabilization plan proposed by Stantec which have the potential to adversely affect cultural resources. Not all these activities will take place, as some represent alternatives to others. For each of these actions, there are stipulations for the contractor to follow and plans for how the NPS will avoid or mitigate an adverse effect on the resources. The Midwest Archeological Center (MWAC), working though the park and in coordination with DSC, will serve as the contact for archeological expertise for this project. For any archeological services contracts, MWAC will provide a qualified staff person to serve as Contracting Officer's Representative (COR) for that task order or contract.

Contractor Responsibilities/ MWAC Work Plan

The work area resides in a designated National Park which holds significant cultural resources. If during excavation or other construction activities any cultural resources are uncovered, all activities that may damage such resources will be suspended. The COR and archeologist shall be immediately notified so that appropriate personnel may determine their significance and in what manner they should be handled. COR in this context means the NPS COR at the DSC.

Archeologist in this context means an MWAC Archeologist or SOI Qualified contracted archeologist.

I. Stabilization

Undertaking

The central part of the project will involve two basic steps: 1) preparation of the cutbank and 2) addition of materials for the LPSTP (outlined above). Preparation of the cutbank represents the most risk to cultural resources, as any areas with tension cracks must be removed before adding material for the stabilization. The Stantec design limits identification of tension cracks to be removed to ten feet from the top of the existing grade. Horizontally, from the landward side of the tension crack, the contractor may remove up to two feet from the edge of the tension crack and vertically, up to one foot below the bottom of the tension crack (Figure 3). From observations by the NPS, these tension cracks represent the beginning of a one-to-three-year process of slumping, wasting, undercutting, and washing away of sections of cutbank. If no action is taken, these sections would disappear naturally. MWAC has been intensively monitoring these areas of tension cracks annually from 2019 to present (Roberts 2021; Sturdevant 2019; Weiland 2022, 2023) and performing salvage excavations of any archeological features found on the face of the cutbank (Roos 2010, Sturdevant 2019; Weiland 2023, 2024). Because of this, the existing face of the cutbank at the time of the stabilization will likely have already been investigated. However, the new cutbank face created by removing the areas suffering from tension cracks will require new investigation, and perhaps data recovery if archeological features are found.

Management

During the contractor's excavation of the tension crack areas of the cutbank, MWAC will visually monitor from the lower, left-hand side of the Knife River and visually investigate from the upper ten feet of the cutbank. After the areas with tension cracks are removed the contractor will give MWAC **up to two weeks** to conduct a visual survey of the cutbank and salvage excavation if necessary, using a boom lift from the right side of the river, accessed from above the cutbank. During that time, the contractor will not perform any more excavation on the cutbank but may work in other areas.

The spoils from this removal will be placed in a separate holding area and incorporated into the rip-rap fill so that if there are any small artifacts missed during monitoring, they will not be spread into the general spoil areas to the east and confuse future archeology. After the newly exposed cutbank face has been investigated, addition of materials need not involve archeological monitoring unless there is further ground disturbance.

II. Spoils

Undertaking

In order to ensure proper flow near the stabilization, the Knife River must be moved, and a portion of the left side's sediments must be removed. These are unconsolidated recent alluvia as demonstrated in geotechnical borings (Fellows 2022). Such recent deposits are not likely to yield artifacts, yet their proximity to Elbee and existence in the location where that terrace used

to exist 100 years ago warranted some sampling. Shovel testing (Weiland 2022) demonstrated that these sediments are culturally sterile. If any artifacts do exist in these riverine deposits, they would be too far out of context to have any data potential. Therefore, the removal of these sediments does not require screening for artifacts or any special treatment.

Relocating these dredged alluvia, or “spoils” does represent an issue if they are to not remain on KNRI property, as there are expected to be up to 40,000 cubic yards of material to be disposed. KNRI is very concentrated in archeological sites and any spoil pile of this size when placed on top of archeological resources represents loss of data potential due to inaccessibility. However, it is a strictly additive process, so is not likely to damage archeological resources. It also has potential to affect viewsheds and the cultural landscape. Various options have been discussed. Locations nearest to the river present issues of causing rise in the Knife River floodplain. Taking the spoils outside the park involves long, repeated haul routes. Below are the ways archeological resources would be managed on-site.

Management

The plans show a spoils pile location in the first terrace just east of the Knife River, in the agricultural field near the eastern boundary of the park (Figure 11). This represents a very small haul route, avoiding issues mentioned below. This area is in the floodplain and therefore poses an issue of increasing flood level rise in the area (of the Knife River, please refer to Floodplain Statement of Findings). Most of this area has been shovel tested already (Weiland 2023, 2024; Figure 12), but MWAC will return in spring of 2025 to conduct shovel testing between Staging Area 1 and Spoil option 3. This gives leeway to expand that spoil area so that it need not be so tall.

III. <u>Access Roads</u>

Undertaking

A hauling route will be required for accessing work areas. The left side of the river from which dredging will take place has no roads made for large vehicles, The plans show a haul road crossing the river just north of the stabilization. This road, Access Road 1, will be graded with a culvert up to one foot in depth on one side. There will be a layer of filter fabric between the newly graded road and the layer of gravel (Figure 13). After the period of construction, the gravel from Access Road 1 will be placed in the spoil area across from the Visitor Center. Access Road 2 is already extant, the road that goes across the heart of the Elbee site down to the parking lot with the pit toilet south of the stabilization. Any modification of this road will be additive only, reinforcing with gravel. It will not be used for hauling, but for staging vehicles and trailers.

Management

The contractor shall coordinate with NPS on haul routes.

Access Road 1: MWAC will use the exact coordinates of this access road to plot shovel tests at 15 meter intervals, as this is intense ground disturbance. Because this change to the design occurred late in the project, MWAC will conduct this testing in spring of 2025, soon before the stabilization. If archeological resources are encountered at that point, the road may need minor realignment.

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Access Road 2: No archeological action needed at this road, as there will be no ground disturbance.

IV. Staging Areas

Undertaking

There are two designated staging areas for this project (Figure 10). Staging areas can often cause ground disturbance via rutting by vehicles or heavy equipment. These have been designated in areas that are not known to have archeological sites as they have been surveyed with negative results. Due to changing designs and changing engineers, there are many areas we have tested for the project that will not be used, and some that have been expanded.

Management

Some additional work area was added to Stantec's plans near the end of the design, called Staging Area 1. Most of this area was already surveyed, but this expansion will require more MWAC survey in the spring of 2025 before construction occurs. **If archeological resources are encountered, the contractor may need to avoid that area.**

The contractor shall **not**:

1) Stage vehicles and/or equipment outside of the planned staging areas.
2) Create new staging areas without consulting the COR and archeologist.

Collection strategy

Only artifacts diagnostic to a time period, culture, or function will be collected. Artifacts that are diagnostic/museum grade objects will be accessioned and curated at the KNRI facility. MWAC will take those artifacts temporarily back to the MWAC laboratory to process those artifacts, then return them to the KNRI museum facility. If any non-diagnostic artifacts are collected due to circumstances of removing from the peril of erosion will either be deposited in the Knife River or buried in a location used by KNRI to deal with large amounts of undiagnostic artifacts found throughout their park.

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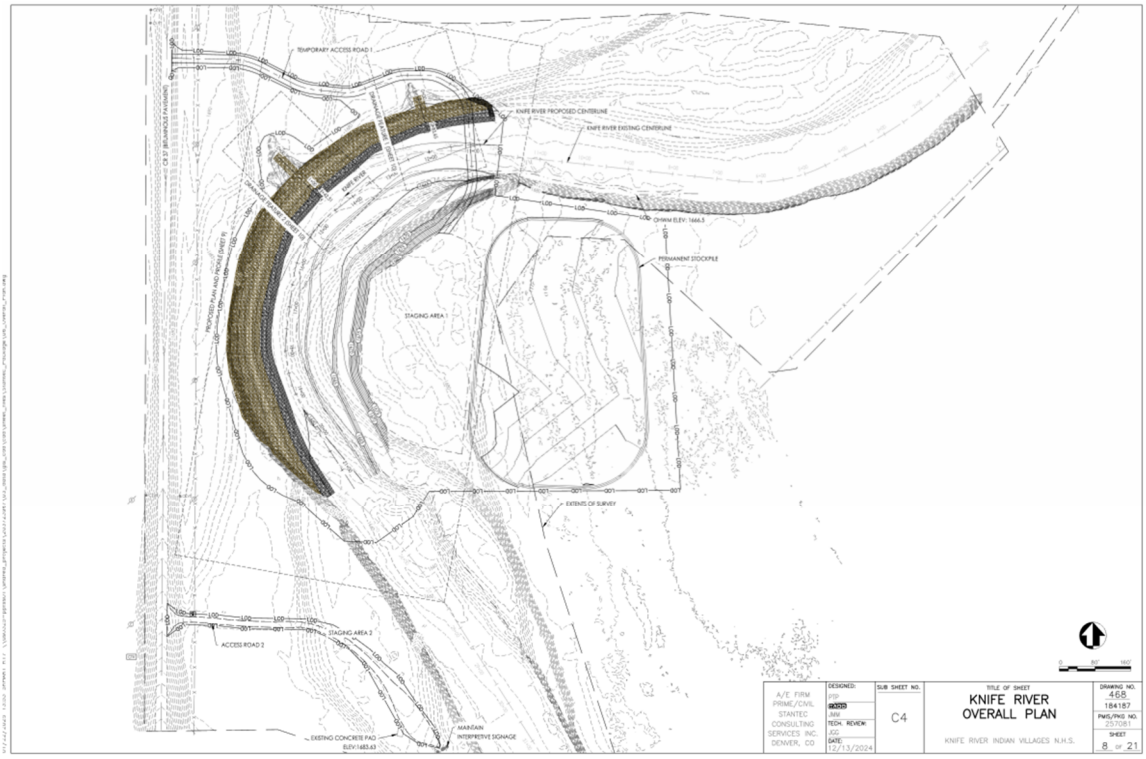

Figure 1: Stantec Proposed Work Area

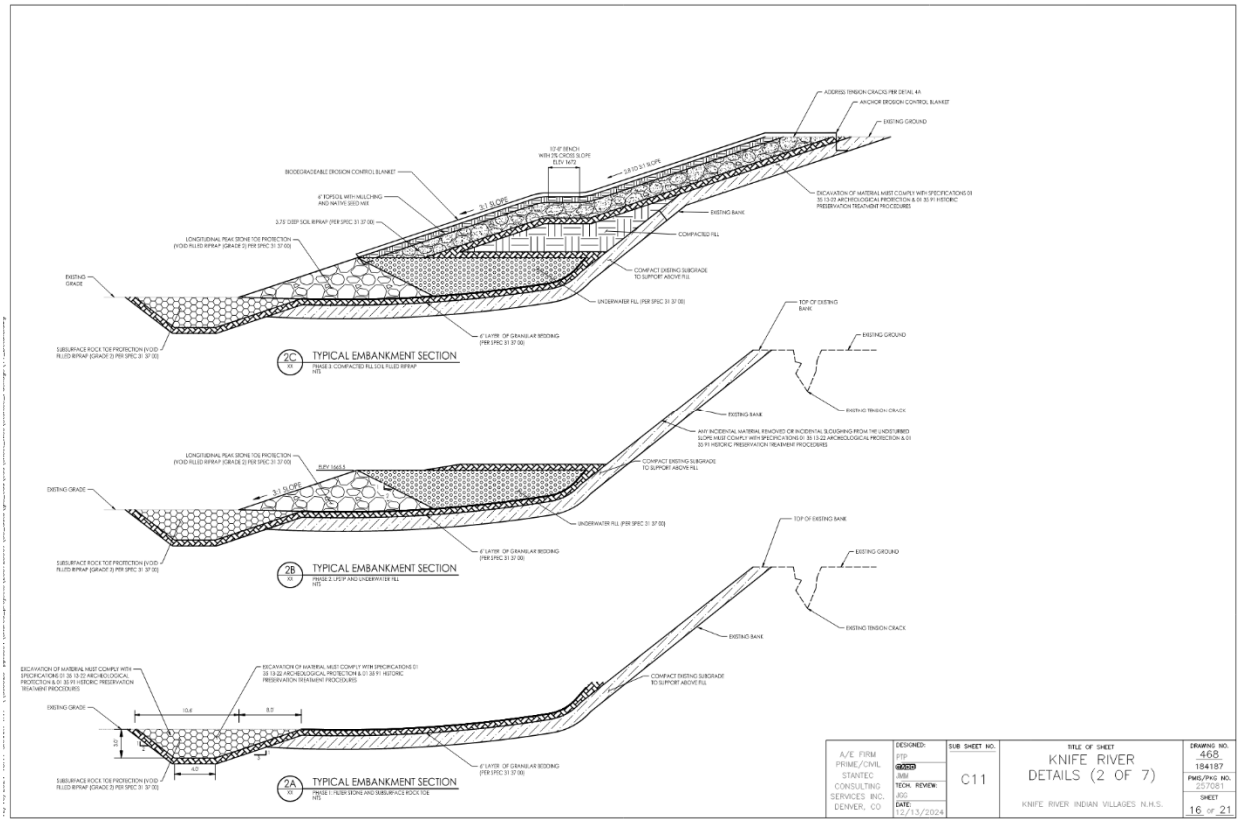

Figure 2: Stantec design showing longitudinal peak stone toe protection

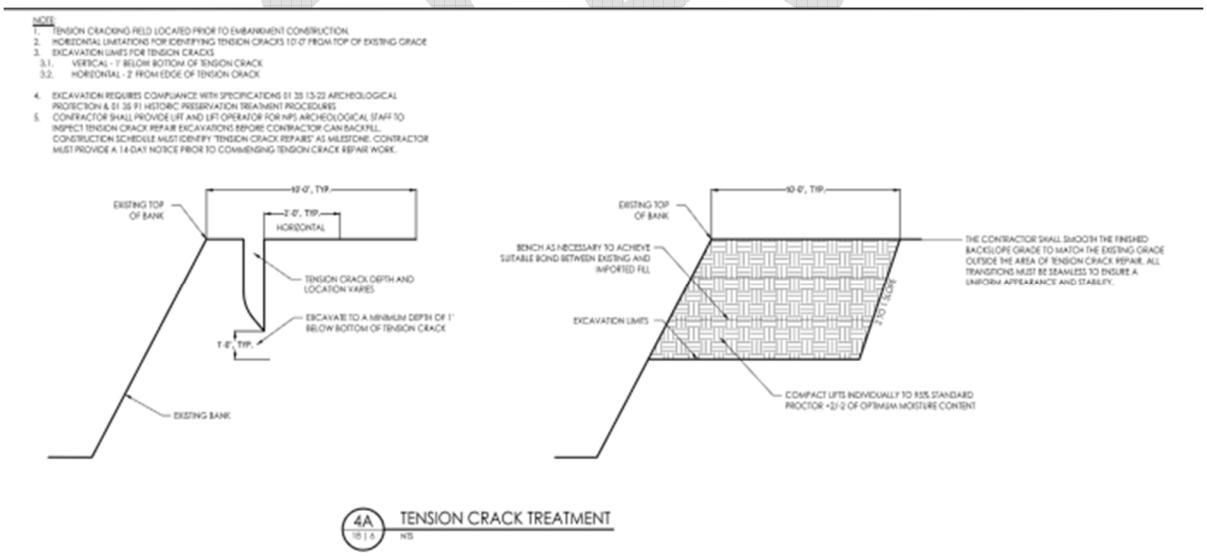

Figure 3: Detail from Stantec drawing of treatment for tension cracks

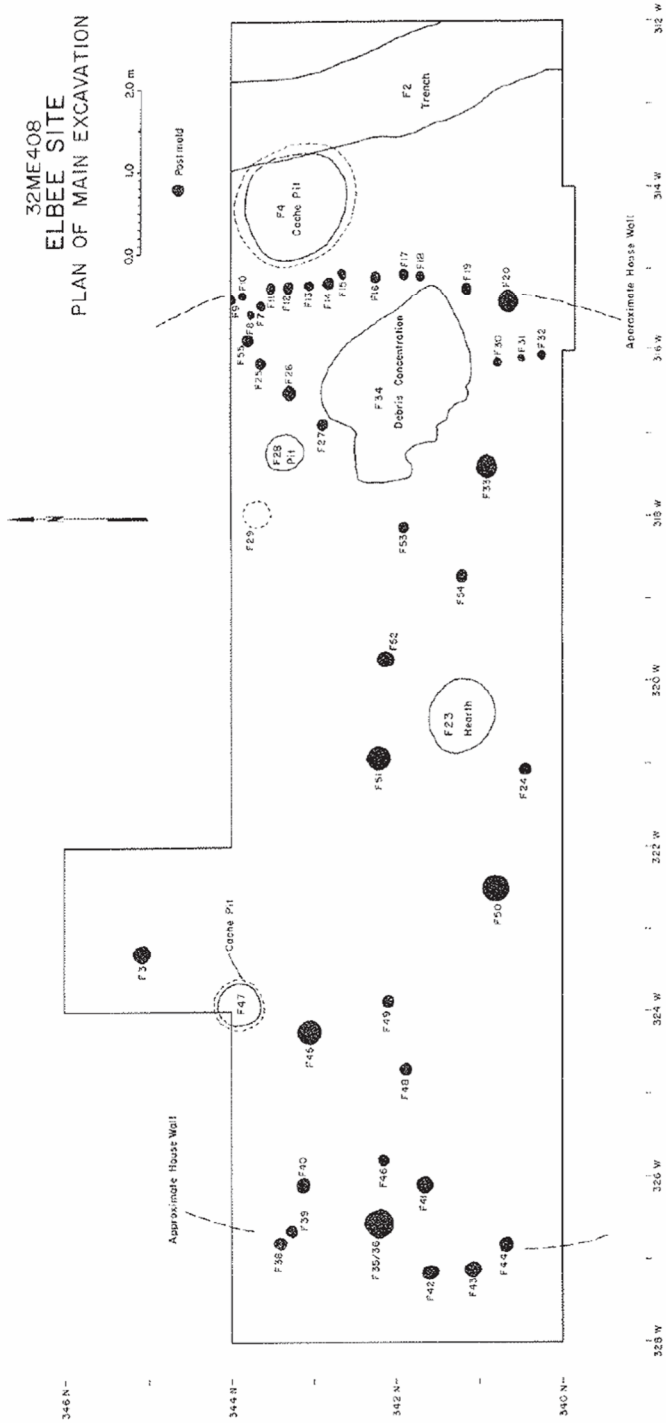

Figure 4. Plan of main excavation area at the Elbee site showing feature locations.

Figure 4: Ahler (1984) excavations from 1978

Figure 5: Thermal features at northern end of site

Figure 6: Feature 201 as excavated by Roos and Hollenback in 2009

Figure 7: Feature 2023-1 as excavated by Weiland in 2023

Figure 8: Feature 2024-1 as excavated by Weiland in 2024

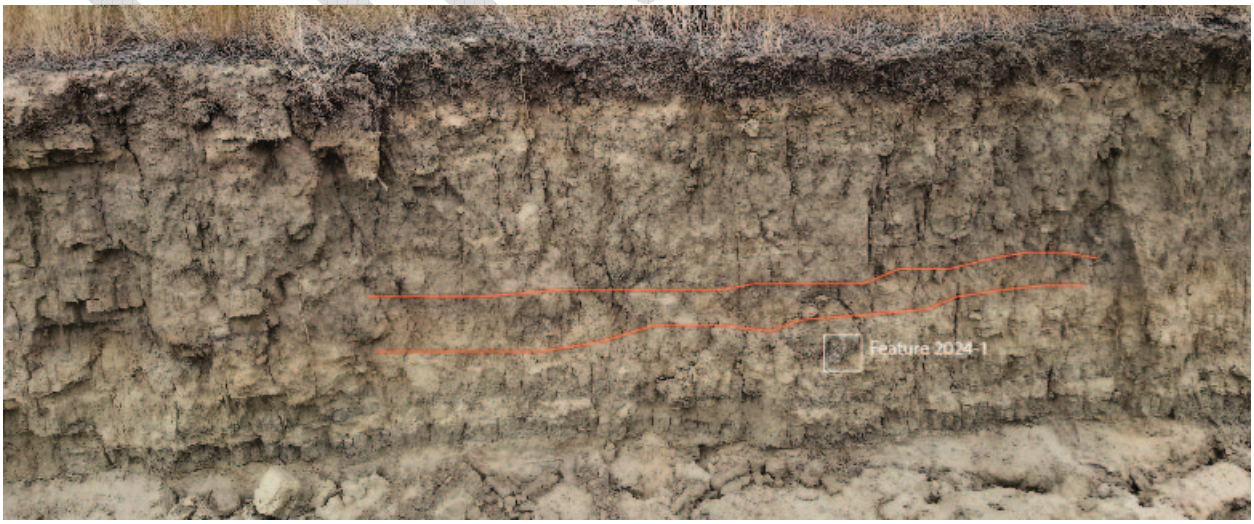

Figure 9: Rubified layer (outlined in red) associated with Features 201, 2023-1, and 2024-1. Feature 2024-1 outlined in white

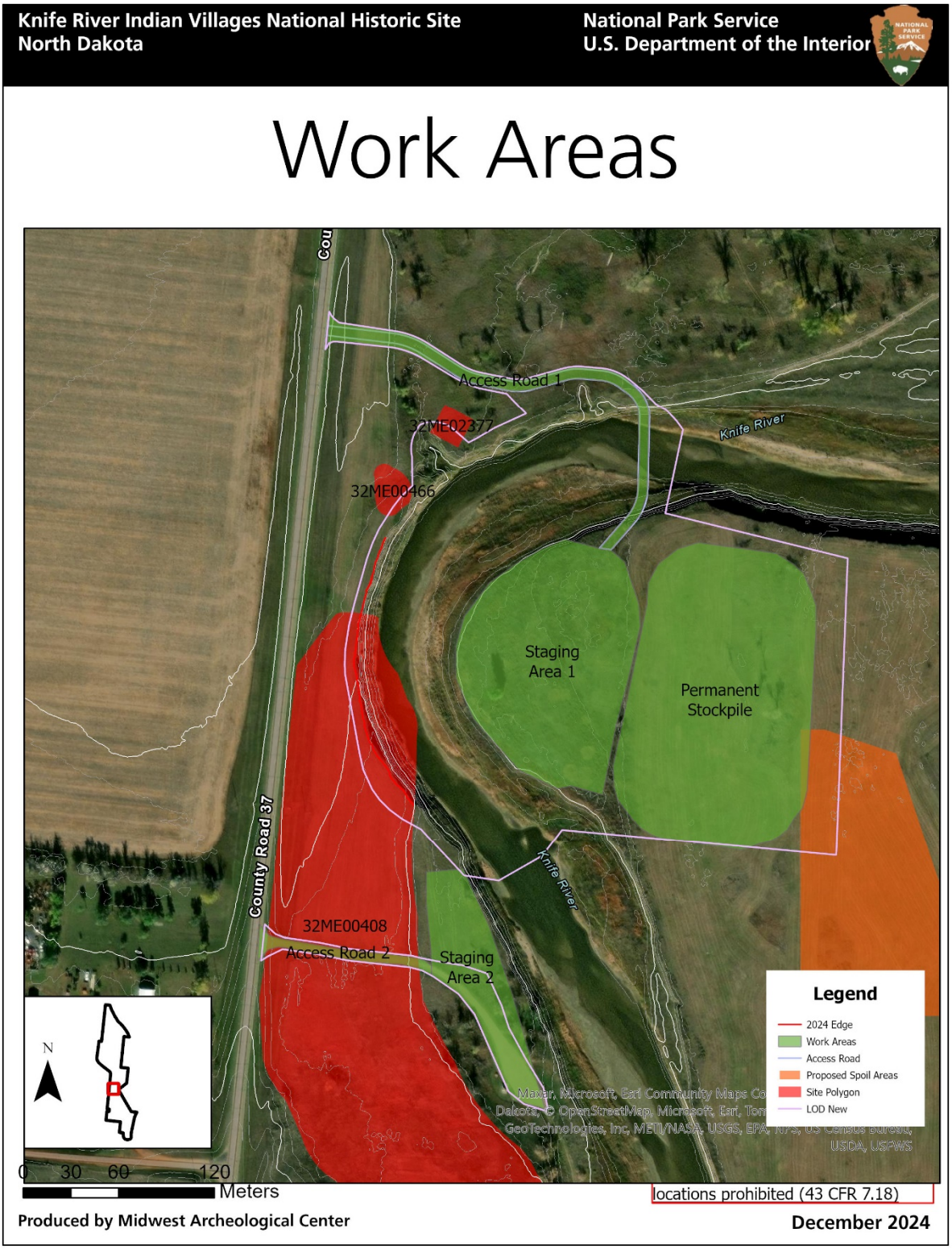

Figure 10: Staging areas and Sensitive area discussed in text

Figure 11: Proposed spoil areas

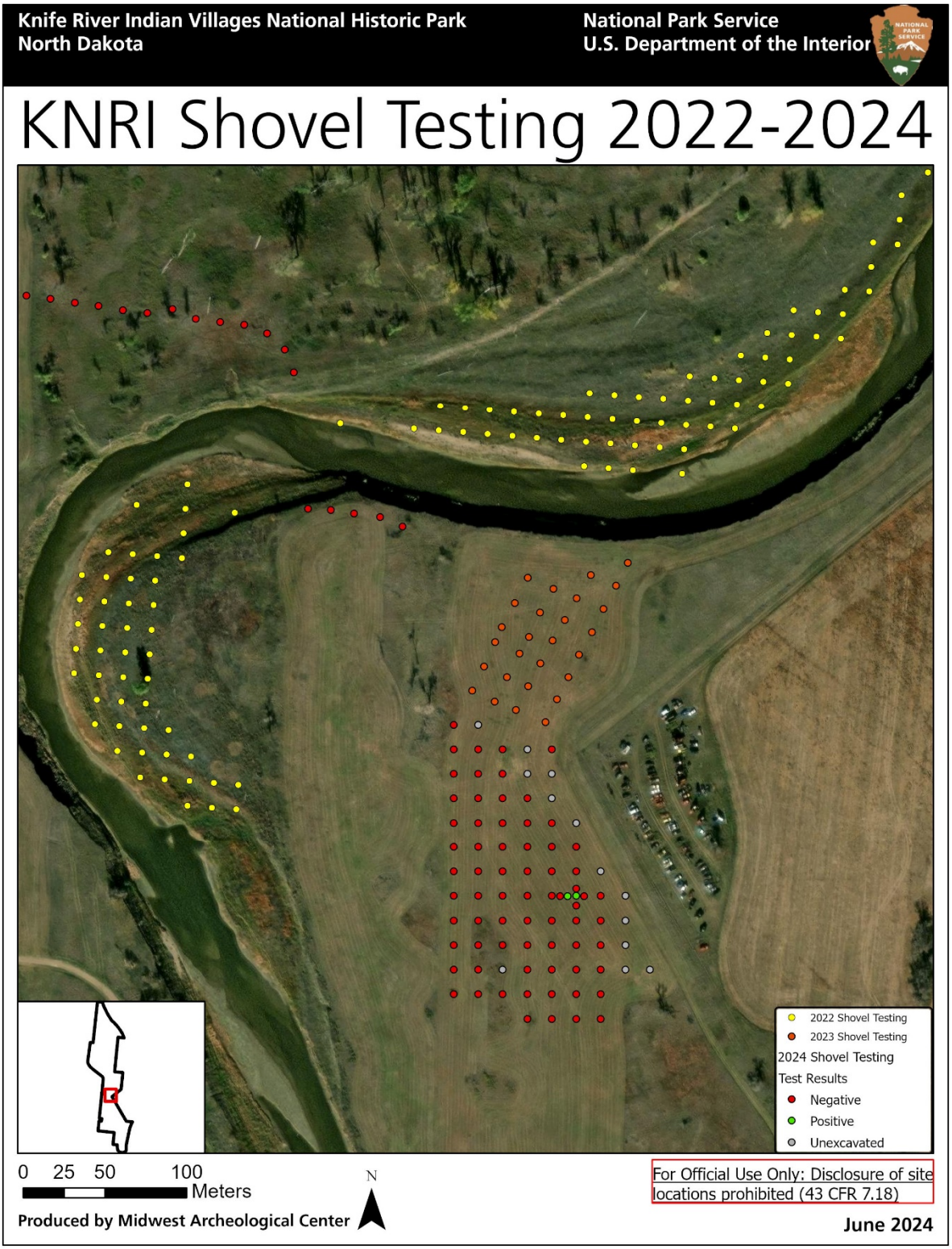

Figure 12: Shovel testing for borrow areas (2022), staging areas (2023) and spoil areas/haul road (2024)

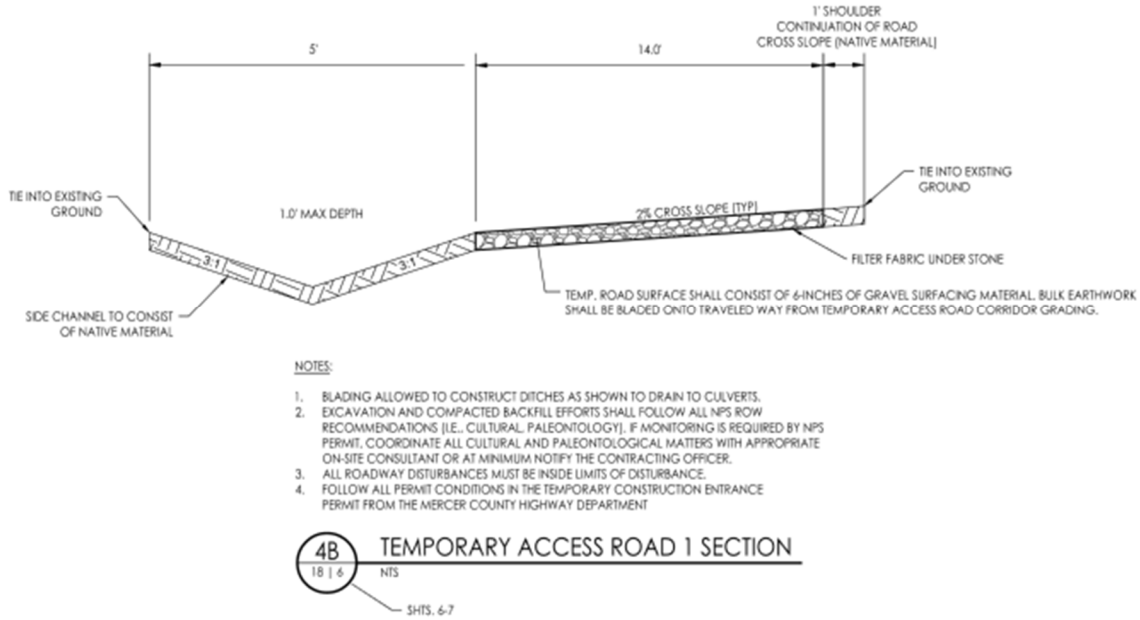

Figure 13: Access Road 1 cross-section

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