

**CONTRACT NO. CTN00X00166**

**INDIAN SELF-DETERMINATION  
CONSTRUCTION  
CONTRACT AGREEMENT**

**ENTERED INTO UNDER THE AUTHORITY OF  
TITLE I OF PUBLIC LAW 93-638 (AS AMENDED)**

**BETWEEN**

**NAVAJO ENGINEERING & CONSTRUCTION AUTHORITY  
(NAVAJO NATION TRIBAL ORGANIZATION)**

**AND**

**THE UNITED STATES OF AMERICA  
DEPARTMENT OF THE INTERIOR  
BUREAU OF INDIAN AFFAIRS**

**FOR**

**CONSTRUCTION OF 18.576 KM OF CONTINUOUS COLD RECYCLED ASPHALT,  
PLACEMENT OF ASPHALT RUBBER CHIP SEALING, AND  
MISCELLANEOUS CONSTRUCTION IN ACCORDANCE WITH THE  
SPECIFICATIONS AND DESIGN DRAWINGS  
FOR PROJECT N13(3-2)4, LOCATED AT U.S. 491 WEST SHIPROCK,  
NEW MEXICO  
SAN JUAN COUNTY, NAVAJO NATION**

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**SECTION "A"**

**CONTRACT FORM**

**&**

**AGREEMENT**

**GENERAL TERMS, PROVISIONS AND CONDITIONS**

**GENERAL TERMS, PROVISIONS & CONDITIONS**

**Agreement Between the Secretary of the Interior  
And the  
NAVAJO ENGINEERING & CONSTRUCTION AUTHORITY  
(Navajo Nation Tribal Organization)**

**CONTRACT NUMBER: CTN00X00166**

**1. AUTHORITY:** This agreement, denoted as a Self-Determination Construction Contract (referred to in this agreement as the "Contract"), is entered into by the Secretary of the Interior (referred to in this agreement as the "Secretary"), for and on behalf of the United States of America, pursuant to Title I of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450 et. seq.), in accordance with Subpart J of 25 CFR Section 900, entitled the Indian Self-Determination and Education Assistance Act Amendments and by the authority of the **NAVAJO ENGINEERING & CONSTRUCTION AUTHORITY** (referred to in this agreement as the "Contractor").

This Contract consists of the following road construction work:

The Contractor shall perform the Construction work for the Bureau of Indian Affairs Road Construction Project, **Project N13(3-2)4 located at U.S. 491 West Shiprock, New Mexico** in full accordance with the statement of work, program standards, and the terms, provisions, and conditions of the contract, on a firm-fixed unit price payment basis, for work performed by the Contractor, and accepted by the Government. A fair and reasonable price for the work to be performed under this contract will be negotiated between the Contractor and the Government in accordance with the provision of 25 CFR 900 Subpart J, Section 900.128.

**2. PURPOSE:** Each provision of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450 et seq.) and each provision of this Contract shall be liberally construed for the benefit of the Contractor, transfer the funding for Construction of the Bureau of Indian Affairs Reservation Road (IRR) Program and Indian Reservation Roads Bridge Program (IRRB) for approved road and bridge project activities on the Navajo Nation as identified in Section B of this contract.

This self-determination construction contract is a government-to-government agreement that transfers control of the construction project(s) to the contracting Indian tribe or tribal organization to facilitate effective and meaningful participation by the Indian tribe or tribal organization in planning, conducting, and administering the construction project(s), and so that the construction program is responsive to the true needs of the Indian Community.

**3. CONTRACTORS OBLIGATION:** The Contractor shall furnish the necessary qualified personnel, including licensed engineers and architects, material, equipment, facilities, and miscellaneous construction to perform Construction work for the Bureau of Indian Affairs Road Construction Project as identified in Section B entitled "Budget Control Schedule" which are located on the Navajo Nation, in full accordance with the Terms, Conditions, Program Standards, Program of Requirements, and all Provisions of this contract. **PRELIMINARY DESCRIPTION OF**

**PROJECT: CONSTRUCTION OF 18.576 KM OF CONTINUOUS COLD RECYCLED ASPHALT, PLACEMENT OF ASPHALT RUBBER CHIP SEALING, AND MISCELLANEOUS CONSTRUCTION IN ACCORDANCE WITH THE SPECIFICATIONS AND DESIGN DRAWINGS**

**4. CONTRACT TERM AND EFFECTIVE DATE:** The term of this contract shall become effective from the date of execution of this contract by the Contractor and the Government. The Contractor agrees to complete the work under this contract by the expiration date of **320 calendar days from date of NTP** subject to such extensions as may be authorized by the terms of the contract and the specifications made as part thereof. The Contractor agrees to prepare and submit to the Government a progress schedule in accordance with Section 155 of the contract Supplemental Specifications, and agrees to provide Bond(s), Certificate(s) of Insurance, Safety plan, Temporary Traffic Control Plan, Storm Water Pollution Prevention Plans, and Quality Control Plans for all items of work prior to commencement of any construction work and issuance of "Notice to Proceed" by the Government.

**5. FUNDING AMOUNT:** The total amount of this contract is stated in the Award/Contract document and is shown in Section B entitled "Budget Control Schedule" for project activities that have been approved in the Transportation Improvement Plan (TIP) located on or near the Navajo Nation. For performing this contract the Contractor shall be paid for its allowable and allocable direct costs not to exceed that total budget amount stated in the Award/Contract document which identifies the Construction work. The amount of this Contract may, during the life of this Contract, include sums which are based on tentative allocations of funds which the Bureau believe will be available. The actual allocation(s) of funds may be less than the tentative allocation(s) when the United States Congress makes appropriations. By signing this Contract, or any modifications thereto, the Contractor understands that all contract funds are subject to availability, the Contractor **acknowledges that: (1) The contract amount is based on a tentative allocation of funds; (2) that the actual allocation of funds may be less than the funds identified in the contract; and, (3) it may become necessary to modify the Contract to reflect the actual allocation and (4) that any such modification is required by law (25 U.S.C. 450j-l).**

**6. PAYMENT:** The total amount of this contract is stated in the Award/Contract document and is shown in Section B entitled "Budget/Control Schedule". The Contractor shall be paid for its allowable direct costs, **not to exceed the total amount negotiated (\$5,312,287.00)** between the Contractor and the Government for the Construction work identified in the Project Control Schedule and completed construction Bid Schedule. The contract payments shall be made upon presentation of partial pay Estimates of units of work actually performed. Each estimate shall contain an itemization of units completed by line item as stated in the Bid Schedule(s).

On the First (1<sup>st</sup>) and Fifteenth (15<sup>th</sup>) of each month or the following work day, should these dates fall on a weekend or holiday, the AOTR/SAOTR will prepare and submit a pay estimate to the Contractor for approval on a form acceptable to both the Contractor and the Government.

The pay estimate will be reviewed and approved (in writing) by both the Contractor's field representative and AOTR/SAOTR prior to submission to the Regional Office for approval and processing. **The approved pay estimate shall be the only document required for payment and no other action will be required on the part of the Contractor to obtain payment.** After the

Awarding Official reviews and approves the progress estimate, it will be transmitted to the Regional Approving Official for ACH payments for processing through the PL 93-638 ACH Payment System. The allowability of costs for this contract and all subcontracts entered into under this contract shall be determined by 25 CFR SubPart J, Sec. 900.132, or if applicable OMB Circular A-87.

Notwithstanding any other payment provisions of this contract, failure of the Contractor to submit required reports when due. Failure to perform or deliver the required work, supplies or services will result in the withholding of payments under this contract in accordance with 25 USC SubPart L, Sec. 900.170; unless such failure is determined to be "excusable" by the Awarding Official under the terms, provisions, and conditions of the contract.

Except with respect to failures of subcontractors, the Contractor shall not be considered to have failed in performance of this contract if such failure arises out of causes beyond the control and without fault or negligence of the Contractor.

The Government shall promptly notify the Contractor in writing of its intention to withhold payment of any invoice or voucher submitted and provide for a reasonable time to correct the reason for withholding payment.

**7. AWARDING OFFICIAL'S TECHNICAL REPRESENTATIVE:** The Awarding Official's Technical Representative (AOTR) and the Subordinate Awarding Official's Technical Representative (SAOTR) will be designated by memorandum. Copies of memoranda designating the AOTR and SAOTR for this Contract will be forwarded to the Contractor.

**8. TECHNICAL ASSISTANCE:** Should performance deficiencies or disagreement arise during the performance of this contract, Government shall offer and provide technical assistance to the Contractor and may oversee and provide technical assistance to the Contractor to resolve any such occurrences prior to taking any action for termination of work.

**9. FEDERAL ACQUISITION REGULATION (FAR) AND DEPARTMENT OF THE INTERIOR(DOI) CLAUSES:** FAR and DOI clauses applicable to the contract any subcontract awarded under this contract are listed in Section I of this contract, and are incorporated into this contract by reference.

**10. RESPONSIBILITIES OF CONTRACTOR:** (a) The Contractor is responsible for the successful completion of project construction activities in accordance with the approved contract documents. (b) If the Contractor is contracting to perform project construction phase activities, the Contractor shall have the following responsibilities: (1) The Contractor shall subcontract with or provide the services of licensed and qualified engineers and other consultants as needed to accomplish the self-determination construction contract. (2) The Contractor shall administer and dispense funds provided through the contract in accordance with Subpart F, Section 900.42 through Section 900.45 and implement a property management system in accordance with Subpart F, Section 900.51 through Section 900.60. (3) The Contractor shall subcontract with or provide the services of construction contractors or provide its own forces to conduct construction activities in accordance with the project construction documents or as otherwise negotiated between and agreed

to by the parties. (4) The Contractor shall direct the activities of project engineers, construction contractors, and other project consultants, facilitate the flow of information between the Indian tribe or tribal organization and its subcontractors, resolve disputes between itself and its subcontractors or between its subcontractors, and monitor the work produced by its subcontractors to assure compliance with the project plans and specifications. (5) The Contractor shall manage or provide the management of day-to-day activities of the contract including the issuance of construction change orders to subcontractors except that, unless the Secretary agrees: (i) The Contractor may not issue a change order to a construction subcontractor that will cause the Contractor to exceed its self-determination contract budget; (ii) The Contractor may not issued a change order to a construction subcontractor that will cause the Contractor to exceed the performance period it its self-determination contract budget; or (iii) The Contractor may not issued to a construction subcontractor a change order that is a significant departure from the scope or objective of the project. (6) The Contractor shall direct the work of its subcontractors so that work produced is provided in accordance with the contract budget and performance period as negotiated between and agreed to by the parties. (7) The Contractor shall provide to the Secretary, progress and financial status reports. (i) The reports shall be provided quarterly, or as negotiated, and shall contain a narrative of the work accomplished, the percentage of the work completed, a report of funds expended during the reporting period, and total funds expended for the project. (ii) The Contractor shall also provide copies, for the information of the Secretary, of an initial schedule of values and updates as the may occur, and an initial construction schedule and updates as they occur. (iii) Provide a summary of problems encountered and identification of potential problems that could hinder individual project development. (8) The Contractor shall maintain on the job-site or project office, and make available to the Secretary during monitoring visits: contracts, major subcontracts, modifications construction documents, change orders, shop drawings, equipment cut sheets, inspection reports, testing reports, and current redline drawings. (c) Upon completion of the project, the Indian Contractor shall provide to the Secretary a reproducible copy of the record plans (As Built) and a contract closeout report. (d) For cost-reimbursable projects, the Contractor shall not be obligated to continue performance that requires an expenditure of more funds than were awarded under the contract. If the Contractor has a reason to believe that the total amount required for performance of the contract will be greater than the amount of funds awarded, it shall provide reasonable notice to the Secretary. If the Secretary does not increase the amount of funds awarded under the contract, the Contractor may suspend performance of the contract until sufficient additional funds are awarded.

**11. OBLIGATION OF THE UNITED STATES:** In General - The United States reaffirms the trust responsibility of the United States to the Navajo Nation (Navajo Engineering & Construction Authority – Navajo Nation Tribal Organization) to protect and conserve the trust resources of the Navajo Nation (Navajo Engineering & Construction Authority – Navajo Nation Tribal Organization) and the trust resources of individual Indians. Nothing in this Contract may be construed to terminate, waive, modify, or reduce the trust responsibility of the United States to the tribe(s) of individual Indians. The Secretary shall act in good faith in holding such trust responsibility. If the Contractor is contracting to perform construction phase activities, the Secretary shall have the responsibilities as outlined under 25 CFR, Part 900, Subpart J, Section 900.131(b).



The Government will provide representation at the Concept/Scoping meeting for project development. The Government will inform the Contractor regarding any changes to the programs based on law, regulation, or policy. The Government will consult with the Contractor and identify any projects that qualify as "standby projects" on the BIA DOT Control Schedule, and advise the Contractor of the availability of excess program funds that may become available for obligation to their projects during the fourth quarter.

**12. DESIGNATED OFFICIALS:** No later than the effective date of this contract, the United States shall provide to the Contractor, and the Contractor shall provide to the United States, a written designation of a senior official to serve as a representative for notices, proposed amendments to the contract, and other purposes for this contract.

The Awarding Official's Technical Representative (AOTR) for this contract is:

NAME	PHONE
Mr. Lorenzo Dugi	(505) 863-8277

The Subordinate Awarding Official's Technical Representative (SubAOTR) this contract is:

NAME	PHONE
Mr. Anderson Blatchford	(505) 368-3340

The Official Representative to negotiate for the Contractor is:

NAME	PHONE
Mr. Cary Patterson	(505) 368-5151

**13. MODIFICATIONS OR AMENDMENTS:** (A) This contract may be revised or amended by the Government as required to carry out the purpose of the project. The Government's right to order change within the scope of the contract be set forth in FAR Clause 52.243-4. In General-Except as provided above, and Public Law 93-638, Section 108, Section 1 (e)(2)(B), entitled "Exception", no modification to this Contract shall take effect unless such modification is made in the form of a written amendment to the Contract, and the Contractor and the Secretary provide written consent for the modification. **The Government and the Contractor agreed to the following markups and taxes to be used for contract modifications under this contract: Tribal Taxes = 4% on applicable materials and subcontracts; Profit = 8% of direct cost; Overhead = 30% of direct labor costs for NECA employees; and Bond = 1% of all costs inclusive of overhead and profit.**

**14. ACCOUNTING CERTIFICATION:** The Contractor agrees to provide certification by a licensed accountant that the bookkeeping and accounting procedures which the tribal organization presently uses meet the standards of 25 CFR Part 900, Subpart F. In place of the certification; the Contractor may submit a written agreement to establish a bookkeeping and accounting system that meets the standards of 25 CFR Part 900, Subpart F, and to have the bookkeeping and accounting system certified before the Bureau disburses any funds under a contract awarded as a result of this funding agreement. The accounting system shall provide for the accumulation of costs throughout the contract terms or performance period in such a manner as to facilitate audit or review of the financial records. Ultimate responsibility and accountability of the contracted project resides with the Contractor. By signing this contract, the Contractor certifies that its purchasing, financial and property systems fully meet the standards prescribed by 25 CFR Subpart F, and that staffing

(including management and architectural/engineering resources) are adequate to satisfactorily perform the work required under this construction project. This certification does not limit BIA's authority to review the adequacy of Contractor's purchasing, financial, and property systems.

**15. DRAWINGS AND OTHER DATA TO BECOME PROPERTY OF THE GOVERNMENT:** All designs, drawings, specifications, notes, and other work developed in the performance of this Contract shall be and shall remain the sole property of the Government and may be used on any other work without additional compensation under this Contract. The Secretary reserves a royalty free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, for General government purposes, the copyright in any work developed under this contract or a subcontract under this contract and any rights of copyright which the Contractor or subcontractor under this contract purchases ownership through this contract.

**16. APPROVAL OF CONTRACT:** Unless previously furnished to the Secretary, the resolution of the Navajo Nation authorizing the contracting of the programs, services, functions, and activities identified in this Contract is attached to this Contract under Section J.

**17. PRIVACY ACT REQUIREMENTS:** When a tribal contractor operates a system of records to accomplish a Bureau function, the contractor shall comply with Subpart D of 43 CFR Part 2 which implements the Privacy Act (5 U.S.C. 552a).

**18. FREEDOM OF INFORMATION:** Unless otherwise required by law, the Bureau shall not place restrictions on tribal contractors which will limit public access to the tribal contractor's records except when records must remain confidential. The Contractor shall make all reports and information concerning the contract available to the Indian people, which the contractor serves or represents.

**19. AUDIT REQUIREMENTS:** The Contractor agrees to arrange for, participate fully in, and respond promptly and fully to the recommendations of an annual single organization-wide audit as prescribed by the Single Audit Act of 1984, in the current Office of Management and Budget (OMB) Circular A-133 and in Title 43 Code of Federal Regulations, Part 12. The costs of such audit are allowable charges only if made in accordance with Circular provisions. Small and minority business audit firms shall be afforded maximum practicable opportunity to participate in contracts to fulfill the requirements herein. The preference requirements of Section 7(b), Public law 93-638, shall apply and are to be enforced. The Contractor agrees to participate fully in, and respond promptly and fully to any special audit of this contract, if requested by the Awarding Official.

**20. PENALTIES:** Any officer, director, agent, employee or such other person connected in any capacity with this contract or any subcontract thereunder that embezzles, willfully misapplies, steals or obtains by fraud any of the money, funds, assets or property provided through the contract shall be fined not more than \$10,000 or imprisoned for not more than two years; or both; provided that if the amount embezzled, misapplied, stolen, or obtained by fraud does not exceed \$100, such person shall be fined not more than \$1,000 or imprisoned not more than one year, or both. The Contractor agrees to insert this clause in all subcontracts.

**21. RECORDS, MONITORING AND REPORTING:** The Contractor shall maintain a record keeping system and, upon reasonable advance request, provide reasonable access to such records by

BIA. At a minimum, such records shall include completed daily reports of construction activities appropriate to the type of construction being performed. The Contractor shall be responsible for managing the day-to-day operations conducted under this contract and for monitoring activities conducted under this contract to ensure compliance with the contract and applicable Federal requirements. With respect to the monitoring activities of Government, the monitoring visits/inspections shall include those jointly determined to be necessary to ensure compliance with the contract, including structural integrity of the project and compliance with safety, health, and environmental standards or requirements. Prior to beginning of construction the Contractor and Government will agree upon Government's process for monitoring the project activities.

The Contractor shall maintain on the job-site or project office, and make available to the Secretary during monitoring visits; contracts, major subcontracts, modifications, construction documents, change orders, shop drawings, equipment cut sheets, inspection reports, testing reports, and current redline drawings.

When contracting for construction services the Contractor shall provide the reports identified in CFR 900.130(c)(7). In addition to reports which may be required by various other clauses of this contract, the Contractor shall submit the following reports to the Subordinate Awarding Official's Technical Representative (SubAOTR); (1) Daily Reports on Safety, (b) Annual Reports on Indian Employment, (c) Indian Hours Worked by craft, (d) Indian Wages, (e) Non-Indian Hours Worked, and Non-Indian Wages.

**22. WITHHOLDING CONTRACT PAYMENTS:** Withholding of Contract Payments shall be in strict compliance with 25 CFR Part 900, Section 900.132.

**23. FURNISHING FACILITIES, EQUIPMENT, SUPPLIES AND SERVICES – BUDGETED COSTS:** This contract does not require the furnishing of Facilities, Equipment, Supplies and Services as budgeted costs. All facilities, equipment, supplies and services required to perform the actual construction work are incidental to the item listed in the bid schedule(s).

**24. BILLING FOR INDIRECT COST:** Any indirect costs associated with this contract are to be included in the item unit bid price for Project Representative and/or the individual item unit bid price. No separate billing for indirect costs will be allowed.

**25. OFFICE OF NAVAJO LABOR RELATIONS:** Navajo Preference in Employment Act is applicable to this contract and to subcontracts pursuant to Section 7b and 7c of the Act.

**26. ACCIDENT PREVENTION:** The Contractor agrees to prepare an Accident Prevention Plan in accordance with FAR Clause 52-236.13 and submit to the Government prior to the commencement of construction work under this contract.

**27. DISPUTES:** This contract is subject to the Contract Disputes Act of 1978 (CDA 41 U.S.C. 601 as amended) and as outlined in CFR 900 Subpart N.

**28. SUSPENSION OF WORK:** The Secretary can require an Indian Contractor or Contractor's Organization to suspend work under a contract in accordance with this paragraph. The Secretary may suspend a contract no more than 30 days unless the Indian Contractor or Contractor's

Organization has failed to correct the reason(s) for the suspension or unless the cause of the suspension cannot be resolved through either the efforts of the Secretary or the Indian Contractor's Organization. The following are reasons the Secretary may suspend work under a self-determination contract for construction: (a) Differing site conditions encountered upon commencement of construction activities that impact health or safety concerns or shall require an increase in the negotiated project budget; (b) The Secretary discovers materially non-compliant work; (c) Funds allocated for the project that is the subject of this contract are rescinded by Congressional action; or (d) Other Congressional actions occur that materially affect the subject matter of the contract. If the Secretary wishes to suspend the work, the Secretary shall first provide written notice and an opportunity for the Indian Contractor or Contractor's Organization to correct the problem. The Secretary may direct the Indian Contractor or Contractor's Organization to suspend temporarily work under a contract only after providing a minimum of 5 working days advance written notice to the Indian Contractor or Contractor's Organization describing the nature of the performance deficiencies or imminent safety, health or environmental issues which are the cause for suspending the work. The Indian Contractor or Contractor's Organization shall be compensated for reasonable costs, including but not limited to overhead costs, incurred due to any suspension of work that occurred through no fault of the Indian Contractor or Contractor's Organization. Disputes arising as a result of a suspension of the work by Secretary shall be subject to the Contract Disputes Act or any other alternative disputes resolution mechanism as negotiated between and agreed to by the parties and contained in the contract.

**29. TERMINATION OF WORK FOR CAUSE:** The Secretary can terminate the project for cause in the event non-compliant work is not corrected through suspension process specified in paragraph 11 of 25 CFR Part 900, Section 900.131(b).

**30. TERMINATION FOR CONVENIENCE:** The Secretary retains the authority to terminate the project for convenience for the following reasons: (i) Termination for convenience is requested by the Indian Contractor or Contractor's Organization; (ii) Termination for convenience is requested by the Secretary and agreed to by the Indian Contractor or Contractor's Organization; (iii) Funds allocated for the project that is the subject of the contract are rescinded by Congressional action; (iv) Other Congressional actions take place that effect the subject matter of the contract; (v) If the Secretary terminates a self-determination construction contract for convenience, the Secretary shall provide the Indian Contractor or Contractor's Organization 21 days advance written notice of intent to terminate a contract for convenience; or (vi) The Indian Contractor or Contractor's Organization shall compensated for reasonable costs incurred due to termination of the contract.

**31. SUBCONTRACTS:** The Contractor shall solicit, award and administer subcontracts in accordance with the following provisions:

**PROCUREMENT SCHEDULE:** The Contractor's purchases/contracts shall be **Fixed Price** contracts as described by the Federal Acquisition Regulations. The Contractor's purchases/contracts shall only be made to responsible subcontractors possessing the ability to perform successfully under the terms and conditions of the proposed procurement. Consideration shall be given to such matters as subcontractor integrity, compliance with public policy, record of past performance, and financial and technical resources. The Contractor shall not make an award to any party which is debarred or suspended or is otherwise excluded from or ineligible for

participation in Federal assistance programs under Executive Order 12549, "Debarment and Suspension".

The Contractor is solely responsible, in accordance with good administrative practice and sound business judgment, for the settlement of all contractual and administrative issues arising out of its procurement. These issues include but are not limited to, source evaluation, protests, disputes, and claims. The Contractor shall maintain a code of standards for conduct to ensure that no employee, officer or agent of the Contractor participates in selection, award, or administration of a subcontract if a conflict of interest (actual or apparent) would be involved. The Contractor shall ensure that personnel selected to perform or manage the construction project are qualified in accordance with generally accepted professional standards of the industry. Engineers, surveyors and other related construction professionals and related trade and craft practitioners shall be licensed under applicable state law or work under the direction of licensed engineers and surveyors, and meet appropriate qualifications and experience requirements for the type of work involved.

**COMPETITION:** Unless a preference is permitted by the Contractor for a tribal or Indian subcontractor, all major procurement transactions will be conducted in a manner which provides for maximum practicable competition in order to obtain fair and reasonable costs or pricing.

**REQUIREMENTS:** Each contract entered into under the Act by the Contractor with a third party in connection with performing the obligations of the Contractor under this contract shall at a minimum: (a) Be in writing; (b) Identify the interested parties their authorities and the purposes of the contract; (c) State the work to be performed under the contract; and (d) State the process for making any claims, the payments to be made, and the terms of the contract, which shall be fixed priced; (e) Be subject to Section 7(b) and (c) of the Act. **INDIAN PREFERENCE:** Pursuant to Section 7(b) of the Indian Self-Determination and Assistance Act, as amended, to the greatest extent feasible, this contract and any subcontracts awarded shall require Indian preferences and opportunities for training and employment in connection with the administration of such contract/subcontracts. In addition, preference in the award of subcontracts shall be given to Indian organizations and to Indian-owned economic enterprises. Pursuant to Section 7(c) of the Indian Self-Determination and Assistance Act, as amended, the tribal employment or contract preference laws adopted by such Contractor shall govern with respect to the administration of the contract or portions of the contract.

**REASONABLENESS OF PRICE:** In order to determine price reasonableness, the Contractor shall ensure the reasonableness of price for every procurement action, including subcontract modifications.

**SUBCONTRACT PROVISIONS:** The *Contractor* will use its own procurement system and procedures to ensure that each subcontract includes clauses required by Federal statutes and executive orders and their implementing regulations and state and local laws and regulations. At a minimum, all subcontracts shall incorporate the following terms and conditions in order to ensure structural integrity, safety, and health, and satisfactory completion of the construction project: (a) administrative, contractual, or legal remedies in instances where subcontractors violate or breach subcontract terms, and provide for such sanctions and penalties as may be appropriate; (b) termination for cause and for convenience including the manner by which it will be effected and the basis for settlement; (c) compliance with the Copeland "Anti-Kickback" Act (18 USC 874) as

supplemented in Department of Labor regulations (29 CFR Part 3); (d) except for the work performed by Tribal or Tribal Organization employees, compliance with Davis-Bacon Act (40 USC 276a to a-7) as supplemented by Department of Labor regulations (29 CFR Part 5); (e) compliance with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 USC 327-330) as supplemented by Department of Labor regulations (29 CFR Part 5); (f) compliance with Miller Act (40 USE 270a-270f) with regard to performance and payment bonds, at the Contractor's option; (g) notice of **Contractor's** requirements and regulations pertaining to reporting; (h) notice of **Contractor's** requirements and regulations pertaining to patent rights with respect to any discovery or invention which arises or is developed in the course of or under such subcontract; (i) notice of **Contractor's** requirements and regulations pertaining to copyrights and rights in data; (j) access by the **Contractor** or BIA, the Comptroller General of the United States, or any of their duly authorized representatives to any book, documents, papers, and records of the subcontractor which are directly pertinent to the subcontract for the purpose of making audit, examination, excerpts, and transcriptions; (k) retention of all required records for three (3) years after final payment and all other pending matters are closed; (l) compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 USC 1857(h)), section 508 of the Clean Water Act (33 USC 1368) Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15); (m) mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163); (n) warranty that delivery of items or work required will be free of asbestos in any form whatsoever except for the use of asbestos cement pipe; (o) compliance with Federal Standard No. 313 (including revisions adopted during the term of the contract) with regard to Hazardous Material Identification and Material Safety Data.

**SUBCONTRACT ADMINISTRATION:** The **Contractor** shall maintain a contract administration system which ensures that each subcontractor performs in accordance with the terms, conditions and specifications of its subcontract, including maintaining records which sufficiently detail the significant history of a subcontract. The **Contractor** has ultimate responsibility for the construction project and is not relieved of such responsibility by authorizing performance of the work by a subcontractor or BIA. Such responsibility includes but is not limited to:

- (1) Providing adequate supervision, inspection, and materials testing to ensure that the project is completed in conformance with approved plans and specifications;
- (2) Efficiently and effectively administering subcontracts through the application of sound management practices and business judgment, including;
  - (a) ensuring that program funds have been expended and accounted for consistent with underlying agreements and program objectives;
  - (b) assuming responsibility for employing whatever form of organization and management that is necessary to assure proper and efficient administration;
  - (c) obtaining all access rights, licenses, and permits when the project is located on lands where the **Contractor** does not have legal jurisdiction or when special conditions warrant. In such instances, the **Contractor** will not be relieved from overall project responsibility and should coordinate with the entity having jurisdiction to perform the work with its own forces or by subcontract;
  - (d) settling all contractual and administrative issues arising from procurement. These issues include, but are not limited to source evaluation, protests, disputes, and claims. The **Contractor** will have protest procedures to handle and resolve disputes relating to their subcontracts and shall disclose information regarding the protest to the Awarding Official; and

(3) Processing regular progress payments to subcontractors as work is accomplished. The **Contractor** is not authorized to make advance payments to subcontractors.

**All subcontracts entered into under this contract shall contain the FAR clauses prescribed in Section I of this contract.** The Contractor shall be responsible for the project site, regardless of the subcontract(s) contractual relationship to the Contractor. The Contractor shall cause to be removed from the work at the project site any subcontractor employee thereof whom the Awarding Official, in writing, finds to be incompetent, careless or otherwise objectionable. Failure of any subcontractor(s) to complete work described in its subcontract in a satisfactory manner, or without delay, will not excuse the Contractor from any delay in the completion of the entire contract except as provided in the applicable clause of the contract.

In connection with the performance of work under this contract, the Contractor shall, in accordance with FAR Clause 52.209-6, *Protecting the Government's Interests when Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment*, not subcontract with a subcontractor who, at the time of the subcontract award, is listed on the List of Parties Excluded from Federal Procurement and Non-procurement programs, unless otherwise authorized by the Government in accordance with Subpart 9.4 of the Federal Acquisition Regulations.

A consolidated List of Debarred, Suspended, and Ineligible Contractor is available for inspection at the office of the Awarding Official. In the event of the Contractor's noncompliance with the foregoing requirements, the Government may take appropriate action, including, but not limited to, requiring the Contractor to terminate any such subcontract and substitute an eligible subcontractor in lieu thereof, at no increase in the contract price or time for performance. The Contractor should note his responsibility to award all subcontracts in accordance with Section 7(b) of P.L. 93-638 which requires that to the greatest extent feasible, preferences and opportunities for training and employment in connection with the administration of this contract shall be given to Indians; and preference in the award of subcontracts in connection with the administration of this contract shall be given to Indian organizations and to Indian-owned economic enterprises as defined in Section 3 of the Indian Financing Act of 1974 (88 Stat. 77).

**DAVIS BACON ACT (WAGES):** All laborers and mechanic employed by subcontractors employed in the construction, alteration, or repair, including painting or decorating or buildings or other facilities in connection with subcontracts entered into under this contract shall be paid wages at not less than those prevailing on similar construction in the locality, as determined by the Government of Labor in accordance with Davis-Bacon Act of March 3, 1931 (46 Stat. 1494), as amended.

**INSURANCE:** The Contractor and it is recommended for any subcontractors who perform any of the projects identified in the contract shall secure, pay premiums for, and keep in force until the expiration of this contract, or subcontract under this contract, or any renewal thereof, the following insurance: (1) Workman Compensation Insurance, as required by the laws of the various states in which the contract is performed; (2) Owner's landlord's and tenant's bodily injury liability insurance with limits of not less than \$1,000,000 for each person, and \$5,000,000 for each accident; (3) Property Damage Liability Insurance with limits of not less than \$500,000 for each accident and a total limit of \$1,000,000 for damages arising out of bodily injuries to or death of two persons in

any one accident. Other insurance not specifically mentioned in the above paragraph when required by law or other regulations. Each insurance company of the Contractor or subcontractor must hold a current Certificate of Authority issued by the Director State Department of Insurance authorizing it to transact the appropriate kind of insurance business in State. To be acceptable, the policy of the insurance must contain a provision committing the insurer to pay for covered acts and omissions regardless of the fact that the same acts or omissions by the Contractor or subcontractors, its agent and employees may be covered under the Federal Tort Claims Act. Each policy of insurance shall be obtained by the Contractor shall also name the United States of America as an additional insured party to the policy. If the insurer denies coverage of a claim, does not defend the claim or does not pay the claim, and the claimant sues the Contractor or the United States or both for the injury, the following will occur: The Contractor or the United States of America, will tender the defense to the insurance company. If the insurance carrier does not defend, and the Contractor or the United States of America defends or settles the claim, the insurer shall pay the insured party that pays the claim (Contractor or United States of America). The amount of payment by the insurer will be the amount of the claim plus the cost of the defense, up to, but not to exceed the policy limit. Each policy of insurance shall contain an endorsement providing that cancellation by the insurance company shall not be effective unless a copy of the cancellation is mailed (registered) to the appropriate official of the Contractor at least 30 days before the effective date of the cancellation notice received, immediately upon receipt. A certificate of each policy of insurance, and any changes therein, shall be furnished to the Awarding Official immediately upon receipt from the insurance company. Insurance companies of the Contractor must be satisfactory to the Awarding Official. When in the Awarding Official's opinion an insurance company is not satisfactory for reasons stated in writing, the Awarding Official may recommend the contractor obtain insurance through companies, which he/she deems satisfactory.

Each policy of insurance shall contain a provision that the insurance carrier waives any rights which it may have to raise as a defense the tribe's sovereign immunity from suit, but such waiver shall extend only to claims in the amount and nature of which are within the coverage and limits of the policy of insurance. The policy shall contain no provision, either express or implied, that will serve to authorize or empower, the insurance carrier to waive or otherwise limit the tribe's sovereign immunity outside or beyond the coverage and limits of the policy of insurance.

**BONDING:** Performance and payment bonds with penal amounts equal to 100% of the amount of the contract are required by law when bid exceeds \$25,000. Such bonds are not required if all work performed under this contract is solely performed by the Tribe, or public non-profit corporations serving as a government instrumentality of the Tribe. Proof of public non-profit corporate status must be furnished to, and be satisfactory to the Awarding Official. All subcontractors performing work under this contract are subject to bonding requirements. The Contractor is encouraged to ensure that subcontractors provide performance and payment bonds as required with penal amounts equal to 100% of the amount of the contract. Subcontractors Bonds are to be made payable to the Contractor and the Government. Corporate sureties offered for bonds furnished with this contract must be original documents and must appear on the list contained in the Department of Treasury Circular 570, entitled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and Acceptable Reinsuring Companies".



## **SECTION "B"**

### **BUDGET/CONTROL SCHEDULE**

- 1. SCHEDULE OF ALLOWABLE COSTS**
- 2. SUMMARY OF PROJECT(S) COSTS - BID SCHEDULE**
- 3. SCHEDULE OF PROJECT TARGET DATES**

**CONTROL SCHEDULE**  
**Schedule of Allowable Costs**

**Project Name: U.S. 491 WEST SHIPROCK , NM Project**  
**Project I.D.: N13(3-2)4**

Program Cost Code	Expenditure Account Description	FY 2008/2009 Contract Funding Amount	Party Responsible For completing the work	Government Direct Service Estimated Amount
N00370 2008 F3111 N3224500 252i (PO8N00-02) N00370 2008 F1411 N3224500 252i (PO8N00-02)	Construction	\$4,017,043.00 \$1,295,244.00	Contractor	\$ 0.00

**TOTAL CONTRACT AMOUNT.....\$ 5,312,287.00**

## **BID SCHEDULE**

**BID SCHEDULE***Revised: August 25, 2009***UNIT PRICE SCHEDULE**  
**SCOPE-OF-WORK**

The cost proposal must be submitted on the Unit Price Schedule without modification.

The proposed work consists of furnishing all labor, material, equipment and incidentals necessary for construction of 18.576 km of continuous cold recycled asphalt, placement of asphalt rubber chip sealing, and miscellaneous construction in accordance with the specifications and design drawings for **Project N13(3-2)4, located at U.S. 491 West Shiprock, New Mexico.**

The quantities listed for each item is estimated and the Unit Price is applicable to each as given in the Bid Schedule below. The final pay quantity measurements shall be rounded to the significant figures given in this bid schedule for the final pay estimate.

Payment for work performed on Items furnished will be made in accordance with Sub-Section 109.05, Scope of Payments of **FP-03**.

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
10901-0000	Extra & Miscellaneous Work Authorized Under Section 109.02(m)	All Req'd	Lump Sum	\$	\$
15101-0000	Mobilization	All Req'd	Lump Sum	\$	\$
15201-0000	Construction Survey and Staking	All Req'd	Lump Sum	\$	\$
15701-0000	Temporary Erosion Control	All Req'd	Lump Sum	\$	\$
20304-1000	Removal of Structures & Obstructions	All Req'd	Lump Sum	\$	\$
20412-1000	New and/or Reconstruct Turnouts	5	Each	\$	\$
25110-2000	Placed Riprap, Class 2	848.3	m <sup>3</sup>	\$	\$
30101-2000	Untreated Aggregate Base, Grade "D"	387	ton	\$	\$
40401-000	Minor Hot Asphaltic Concrete	141	ton	\$	\$
40920-2000	Fog Sealing, Emulsified Asphalt, Grade CQS-1h	192,522	m <sup>2</sup>	\$	\$
41602-3000	Continuous Cold Recycled Asphalt Course	192,522	m <sup>2</sup>	\$	\$
41901-0000	Rubberized Asphalt, Chip Seal, Grading special	192,522	m <sup>2</sup>	\$	\$
60101-0000	Minor Concrete, Class A(AE)	11.22	m <sup>3</sup>	\$	\$

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
60201-0810	610 mm Corrugated Steel Pipe, Aluminum Coated, Type 2, 68x12 corr, 1.63 mm thick	116.69	m	\$	\$
60201-0910	762 mm Corrugated Steel Pipe, Aluminum Coated, Type 2	41.98	m	\$	\$
60201-1010	914 mm Corrugated Steel Pipe, Aluminum Coated, Type 2, 68x12 corr, 1.63 mm thick	21.68	m	\$	\$
60201-1810	2134 mm Corrugated Steel Pipe, Aluminum Coated, Type 2, 125x25 corr, 163 mm thick	25.60	m	\$	\$
60202-0610	889 mm x 610 mm CSPA, Aluminum Coated, Type 2, 68x12 corr, 1.63 mm thick	46.34	m	\$	\$
60202-0710	1067 mm x 737 mm CSPA, Aluminum Coated, Type 2, 68x12 corr, 1.63 mm thick	111.76	m	\$	\$
60210-0810	End Section for 610 mm CSPC, Aluminum Coated, Type 2	12	Each	\$	\$
60210-0910	End Section for 762 mm CSPC, Aluminum Coated, Type 2	2	Each	\$	\$
60210-1010	End Section for 914 mm CSPC, Aluminum Coated, Type 2	1	Each	\$	\$
60211-1010	End Section for 889 mm x 610 mm CSPA, Aluminum Coated, Type 2	2	Each	\$	\$
60211-1110	End Section for 1067 mm x 737 mm CSPA, Aluminum Coated, Type 2	5	Each	\$	\$
60701-1000	Remove, Clean & Stockpiling CSP	312.9	m	\$	\$
61701-5000	Guardrail System, SGR04b, Type PDE02 with ET2000 Plus	342.9	m	\$	\$
61801-0000	Concrete Barrier	109.72	m	\$	\$
61901-1000	Barbed-Wire Fencing, 5-Strand	343	m	\$	\$
61901-3400	Temporary Plastic Fencing, HDPE Type (orange)	5	m	\$	\$
61903-0310	Cattleguard, 4900 mm with gate	2	Each	\$	\$
61903-0710	Cattleguard, 7190 mm with gate	1	Each	\$	\$
61903-1010	Cattleguard, 9480 mm without gate	1	Each	\$	\$
61903-2000	Cattleguard, wingbrace	14	Each	\$	\$
62510-1000	Seeding, Dry Method	0.14	Ha	\$	\$

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
63302-0003	Sign Installation, 1 Post & Hardware: 4.10 kg/m	7.10	m <sup>2</sup>	\$	\$
63302-0010	Sign Installation, 2 Post & Hardware: 2.98 kg/m	15.88	m <sup>2</sup>	\$	\$
63302-0022	Sign Installation, 3 Post & Hardware: 4.10 kg/m	2.49	m <sup>2</sup>	\$	\$
63308-2000	Object Marker, Type 2, Glass Fiber	64	Each	\$	\$
63308-3000	Object Marker, Type 3	4	Each	\$	\$
63309-0010	Delineator, Type Glass Fiber, Type "1a"	92	Each	\$	\$
63309-0020	Delineator, Type Glass Fiber, Type "1b"	101	Each	\$	\$
63318-1000	Milepost, 1 Post & Hardware: 2.98 kg/m	44	Each	\$	\$
63401-1510	Pavement Markings, Type "H", Solid Yellow	2,166	meter	\$	\$
63401-1520	Pavement Markings, Type "H", Solid White	36,780	meter	\$	\$
63401-1610	Pavement Markings, Type "H", Broken Yellow	18,456	meter	\$	\$
63405-3260	Pavement Markings, "STOP" Bar, Solid White, Type "H"	1	Each	\$	\$
63501-0000	Temporary Traffic Control	All Req'd	Lump Sum	\$	\$
63502-3000	Temporary Traffic Control, Raised Pavement Markers, Yellow	8,256	Each	\$	\$
63509-1000	Flagger	15,057	Man Hours	\$	\$
TOTAL BID AMOUNT:					\$ _____

**CONTROL SCHEDULE**  
**Schedule of Project Target Dates**

<b>Project Name</b>	<b>Estimated Construction Start Date</b>	<b>Estimated Construction Completion Date</b>	<b>Estimated Final Construction Acceptance Date</b>
<b>N13(3-2)4</b>	<b>As Specified on Notice to Proceed (NTP)</b>	<b>As Specified on NTP</b>	<b>When all the work called for in the contract is completed in conformance with all contract requirements</b>

## **SECTION "C"**

### **1. PROGRAM STANDARDS**

### **2. STATEMENT OF WORK**

### **3. SPECIAL CONTRACT REQUIREMENTS**

### **4. DEPARTMENT OF LABOR – GENERAL DECISION NO. NM080002**

### **5. PLANS & SPECIFICATIONS**

- **Revisions & Supplemental Specifications to  
FP-03**



## PROGRAM OF REQUIREMENTS

### Program Standards

Except as specifically provided in the Indian Self-Determination and Education's Assistance Act (25 U.S.C. 450 et. seq.) the Contractor is not required to abide by Bureau program guidelines, manuals, or policy directives of the Secretary, unless otherwise agreed to by the Contractor and the Secretary, or otherwise required by law.

The Contractor agrees to provide the services, functions and activities (or portion thereof) listed in the attached Statement of Work and in conformity with the following standards:

Applicable Laws and Regulations: 23 USC, 23 CFR, 25 CFR 170, Roads of the Bureau of Indian Affairs, 25 CFR 169, Right-of-Way Over Indian Lands; 16 USC 470aa-11 Conversation; 25 USC 450, Indian Self-Determination and Education Assistance Act, P.L. 93-638 as amended, 25 CFR Part 900, Indian Self-Determination and Education Assistance Act Amendments, 36 CFR 800, regulations implementing Section 106 of the National Historic Preservation Act of 1996, as amended (P.L. 89-655); 40 CFR 1500-1508, regulations implementing the National Environmental Policy Act of 1969; 43 CFR 7, Protection of Archaeological Resources implementing the Archaeological Resources Protection Act of 1979 and other applicable laws and regulations which expressly apply to Indian Tribes.

Guidelines: The October 29, 1987 draft or most recent version of the 57 BIAM; Chapter 6, Indian Reservation Roads of the Federal Aid Policy Guide; Indian Reservation Roads Program (IRRP) "Business Plan", January 2004; 30 BIAM, Supplemental 1 and 49 CFR 44T16, September 29, 1983 "Secretary of the Interior's Standards and Guidelines" for Archeology and Prehistoric Preservation are incorporated into this Contract. The construction shall be in accordance with the plans and engineering standards utilizing FHWA "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP-03).

Other Laws and Regulations: The Contractor agrees to comply with the "Wild and Scenic Rivers Act" of 1968, Section 102(a) of the "Flood Disaster Protection Act" of 1973 (P.L. 93-234). Title II and III of the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970", (P.L. 91-646), "Lead Based Paint Poisoning Prevention Act", 42 USC 4801 et. seq., Section 106 of the National Historic Preservation Act of 1996" as amended, and 42 USC 4321-4370D, the Public Health and Welfare.

Guidelines will be followed at the discretion of the Contractor, however, alternative guidelines must be consistent with or exceed the above referenced guidelines and shall be approved by the Secretary.

Background: The Indian Reservation Roads (IRR) Construction Program was established on May 26, 1928, by Public Law 520 [Codified at 25 USC 318(a)]. The P.L. 97-424, Surface

Transportation Assistance Act of 1982, incorporated the IRR program into the Federal Lands Highway Program (FLHP) and provided funds for the Highway Trust Fund (HTF), with reauthorization in 1987 and subsequent modification under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), (P.L. 102-240) and the Transportation Equity Act for the 21<sup>st</sup> Century 1998 (TEA21) (P.L. 105-178). The IRR construction program and the IRR Bridge program is authorized under the Federal Land Highway (FLH) program, 23 USC 144, 204. The current IRR and HBRRP programs are jointly administered by the Bureau of Indian Affairs (BIA) and the Federal Highway Administration (FHWA) through a Memorandum of Agreement. P.L. 93-638, "Indian Self-Determination and Education's Assistance Act, as amended, provides for tribal governments to enter into Self-Determination contracts with the Secretary of the Interior to plan, conduct, and administer non-inherent Federal functions, including construction programs administered by the Secretary of the Interior for the benefit of Indians for which appropriations are made to agencies other than the Department of Health and Human Services or the Department of the Interior. The purpose of the IRR Construction Program is to provide safe and adequate transportation and public road access to and within Indian reservations, Indian lands and communities for Native Americans, visitors, recreationists, resource uses and others while contributing to economic development, Self-Determination, and employment of Native Americans. {Indian Reservation Roads Business Plan, January 2004}.

The Regional Director of the Bureau of Indian Affairs establishes the policy within their respective Region's of how their Bureau IRR projects are selected and scheduled for construction and funding. Only those projects that have been approved by the Bureau and FHWA on the IRR Transportation Improvement Program (TIP) are eligible for funding under TEA21.

Performance Requirements: The Contractor shall, in accordance with the Terms, Provisions, and Conditions of the Contract, applicable laws and regulations, and utilizing appropriate guidelines as stipulated in the program standards, perform the Non-Inherent Federal Contractible Functions, Services and Activities for those respective projects as identified in the contract. The Non-Inherent Federal Contractible Functions, Services and Activities are to be performed for the IRR Construction Program and the IRR Bridge Program for those projects as identified and approved on the Bureau's TIP. As provided under Section 900-12 of Subpart J of 25 CFR Part 900, the design phase, including geotechnical services, shall be accomplished by licensed design and geotechnical professionals.

## STATEMENT OF WORK

### Construction

The Contractor shall perform the Construction for the Bureau of Indian Affairs Roads Construction Projects, **Project N13(3-2)4, located at U.S. 491 West Shiprock, NM** in full accordance with the statement of work, program standards, plans and specifications, and the terms, provisions, and conditions of the contract, on a firm-fixed unit price, payment basis, for work performed by the Contractor, and accepted by the Government.

**The project documents, including plans and specifications, as prepared and authorized by the Government, are hereby incorporated into this contract through this reference.**

The Contractor agrees to perform the construction in accordance with this contract and all applicable laws and regulations. The phrase, "applicable laws and regulations" means applicable provisions of 23 USC and 23 CFR, 25 CFR 170, 25 USC 450, PL 93-638 as amended, 25 CFR 900, 36 CFR 800, 40 CFR 1500-1508, 18 USC 874, 40 USC 276c, 327-333, 41 USC 401, 42 USC 4801, Titles II and III of PL 91-646, Section 102(a) of PL 93-234, 16 USC 1271, Section 1065 of the National Historic Preservation Act of 1966, 16 USC 469a-1, & 470, EO 11593, other applicable laws and regulations which expressly apply to Tribal Organizations.

**Governing Specifications:** The Contractor shall utilize FHWA "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP-03), and the following specifications, requirements, standards, and schedules which are hereby incorporated into the contract (**The list below is not in a governing order**):

1. Plans
2. Specifications, Supplemental Specifications, Detail Drawings
3. Bid Schedule
4. Program of Requirements (POR)
5. Statement of Work (SOW)
6. Labor Standards
7. Special Contract Requirements

**NEPA/NHPA Compliance Requirements:** Federal law prohibits the excavation, removal, damage, alteration or defacement of any archaeological resource on Federal or Indian lands. The contractor shall control the action of its employees and subcontractor at the job site to ensure that any protected sites will not be disturbed or damaged. It is the obligation of the contractor to ensure those employees and subcontractors cease work in the event of a newly discovered site until further authorization is obtained. If any previously unknown archaeological or historic sites, artifacts, objects, or other remains of potential archaeological interest are discovered in the course of this undertaking, work in the immediate vicinity is to stop, and a reasonable effort must be made to protect the discovery pending review by the BIA, appropriate tribal officials and the Awarding Official (36 CFR 800.111). The Contractor shall be solely responsible for obtaining all permits and

documents required by the National Environmental Policy Act (NEPA) before occupying or disturbing any area outside of the project right-of-way established in this contract. Activities requiring NEPA and NHPA compliance include, but are not limited to, contractor furnished borrow and aggregate material sources; construction and use of haul roads to and from borrow and aggregate material sources; disposal and stockpiling of material; use and staging areas and equipment yards; establishment of a plant for crushing or processing base and/or surfacing materials; and construction of detours. The contractor is responsible for all activities related to this construction project that occur within or outside the project right-of-way established in this contract and must ensure all activities comply with the following public laws:

**Archaeological Resources Protection Act of 1979** (16 USC 470; 43 CFR Part 7; 25 CFR Part 262);  
**National Environmental Policy Act of 1969, as amended** (42 USC 4247; 40 CFR 1500-1508);  
**National Historic Preservation Act of 1966, as amended** (16 USC 470; 36 CFR Part 800);  
**Native American Graves Protection and Repatriation Act of 1990** (25 USC 3001-3013; 43 CFR Part 10)

For construction projects where more than 1 acre is being disturbed, a site-specific Storm Water Pollution Prevention Plan (SWPPP), which meets all applicable State, Federal and Tribal standards, shall be prepared by the Contractor for this project and copy of the SWPPP shall be onsite and available for inspection during all times of construction activity. A Notice of Intent (NOI) form (EPA Form 3510-9) shall be completed and submitted to the US Environmental Protection Agency (USEPA). EPA Form 3510-9 constitutes notice that the contractor intends to be authorized by a National Pollution Discharge Elimination System (NPDES) permit issued for storm water discharges associated with the project's construction activity as well as meeting all other applicable provisions included on the permit form.

(Also see Special Contract Requirements)

## **SPECIAL CONTRACT REQUIREMENTS**

## SPECIAL CONTRACT REQUIREMENTS

rev: 08/26/09

**1. Requirements for Execution of Surety Bonds**

Each surety company bond (performance and payment) which purports to have been executed by an agent or attorney-in-fact, for the corporate surety, is required to have submitted with it a power of attorney to the signatory agent or attorney-in-fact, and executed by the corporate surety upon a date reasonably approximate to the date to the bond. Such power of attorney shall in each instance be retained with the bond.

**2. Modification Proposal - Cost Breakdown**

The Contractor, in connection with any proposal he makes for a contract modification, shall upon request furnish a price breakdown, itemized as required by the Awarding Official (AO) along with a complete breakdown of the original unit bid price as requested by the AO. Unless otherwise directed, the breakdown shall be in sufficient detail to permit an analysis of all material, labor, equipment, subcontract, and overhead costs, as well as profit, and shall cover all work involved in the modification, whether such work was deleted, added, or changed. Any amount claimed for subcontractors shall be supported by a similar price breakdown. In addition, if the proposal includes a time extension, a justification thereof shall also be furnished. The proposal, together with the price breakdown and time extension justification, shall be furnished by the date specified by the Awarding Official.

**3. Contractor Safety Program Requirements**

The Contractor shall establish a safety program, which shall include at a minimum the following requirements:

**A) Safety Program Submittal:**

Within 30 days following the awarding of a contract, the Contractor shall submit in writing to the Awarding Official's Technical Representative (AOTR) a proposed comprehensive safety program (in accordance with 48 CFR , Clause 52.236-13) for review for contract compliance. The Contractor's safety program shall show detail policies, procedures and plans that will be implemented to ensure the safety and health of employees and visitors at the job site. The Contractor shall prepare a list of major hazards associated with the contract work and provide in the safety program means to minimize the hazards.

**B) Pre-Construction Safety Meeting:**

A representative of the Contractor shall meet with AOTR and staff prior to the start of construction to review the safety program and discuss implementation of health and safety provisions pertinent to the work under contract. The Contractor should be prepared to discuss, in detail, the measures to be taken to control the hazards associated with the major phases of the work under contract. This meeting shall be devoted mainly to a discussion of the manner in which the Contractor intends to administer the health and safety program, delegation of responsibility for implementing the program, and a determination of what shall be presented in the written safety program.

C) Contractor Housekeeping Requirement:

Good housekeeping, including provision and facilities for routine scrap removal, shall be maintained in all areas within the Contractor's scope of operation. Any and all garbage shall be stored and removed to a certified landfill off the reservation.

D) Contractor Contamination Requirement:

Handling, storage, and disposal of hazardous materials of any nature shall be carried out in a manner so as not to contaminate or pollute public and/or private property, water supplies, rivers, lakes, reservoirs, streams, or the atmosphere. Disposal of all materials, including waste, garbage, and sewage, shall comply with all local, tribal, state, and federal regulations.

4. Hours and Days of Work

- A. The performance time allowed under this contract is based on a forty-hour workweek. The Contractor shall provide a minimum 14-calendar day **written** advance notice to the Awarding Official of the actual work schedule, affording adequate opportunity to respond and to schedule Government personnel. Work on Saturdays, Sundays, Government and/ or Tribal holidays is not contemplated, however the Contractor shall make every effort to inform (**in writing**) the Government of his intentions concerning work on weekends and/or holidays (at least 14 calendar days in advance) so that the Government may accommodate the work (requiring inspection and/or oversight) or respond otherwise.

The Contractor is required to update his construction schedule and submit (to the AO) for review and approval if the work outside the normal 40 hours workweek exceeds 2 weeks and it must be approved prior to the work beginning.

- B. In no case shall work be performed on holidays and/or weekends without the approval of the AO. The Contractor shall be allowed to work on items of this contract that do not require government inspection and/or oversight at any time including Saturdays, Sundays, and holidays during the construction period shown herein provided the Contractor inform the AO in **writing** within the time frame specified above. Any costs associated with government inspections and/or oversight on weekends and holidays, or as a result of contractor induced delays or mistakes in the work, shall be deducted from the progress payments in accordance with 4(C) below. The Contractor may dispute the deductions, in writing, to the Awarding Official in accordance with 4(C).

Any quantities of work (as reflected in the bid schedule) that is completed outside the normal work week shall be measured and paid for at the contract unit price bid provided the work meets the requirements of this contract. However, with respect to the quality control item unless agreed to by the AO in writing quality control hours incurred as a result of contractor induced delays or mistakes will not be paid for.

- C. The AOTR shall prepare a detailed breakdown of government expenses incurred as a result of government personnel working in excess of the normal 40 hour work week to accommodate the contractor and shall submit this report to the AO (with a copy to the contractor) for reimbursement through a progress payment adjustment. The AO shall notify the contractor 10 working days in advance of making the adjustment in the next progress payment so that the Contractor is given the opportunity to review the report and any

expenses claimed. Should the Contractor dispute the government expense report, the disputed items shall be submitted to the AO in writing within the time frame given by the AO and the AO shall make a final determination (within 20 working days of receipt of the disputed items).

- D. The Contractor shall submit to the AO the name and legal address of each supervisor to be employed under this contract prior to his entrance on duty. Copies shall be provided to the AO for their records.

**5. Water**

Water sources used for this project shall be subject to the laws and regulations imposed by the permitting agency. Any costs associated with obtaining such permits shall be borne by the Contractor. A copy of this permit shall be furnished to the AOTR prior to construction. In no case may sewer lagoon water be used until the Contractor can show that the water will comply with the requirements of the Navajo EPA and the Clean Water Act and that a testing procedure to follow is outlined in the overall safety plan to insure compliance.

**6. Borrow and Aggregate Materials**

**Contractor Furnished Source:**

The Contractor shall be solely responsible for the location, surveying, permits, and associated costs for all borrow and aggregate material sources either within or outside of any Indian Reservation. The Contractor shall provide copies of all permits to the AO through the AOTR for their records. All activities associated with borrow and aggregate material sources on the Navajo Reservation shall be subject to applicable Federal and Tribal laws. The Government is not responsible for the lack of material within the source to complete the items of work in this contract. All expenses associated with obtaining necessary permits shall be the contractor's responsibility. The contract time shall only be extended (under a negotiated written modification) if the Contractor in obtaining permits requiring Government review and/or approval, which delays the Contractor. A delay caused by Tribal or other local permitting processes is the responsibility of the Contractor. Written proof is required to substantiate any contractor delays.

The Contractor shall perform aggregate quality tests on three (3) representative samples (i.e., 3 samples for the Contractor and 3 for the Government) for each proposed source and for each change in source. A source is defined as the land area from which material will be removed and represented by the aggregate quality samples. The selection of samples representing the source shall be the responsibility of the Contractor including all associated equipment, and labor. The Contractor shall notify the AOTR before opening the test hole within the source so that the AOTR or his elected representative will have the opportunity to observe the test hole opening and subsequent sampling.

The AOTR may perform verification testing on the Government's split samples, the costs of which shall be the responsibility of the Government.

The material sampled shall be tested by an AASHTO certified testing laboratory. The Contractor shall submit the test results to the AOTR. The cost of all sampling, and testing shall be borne by the Contractor. The AOTR may direct the contractor to re-test the material source based on government test results. The costs of any re-testing shall be borne by the Contractor, unless such tests substantiate the contractor's original results, in which case the Government will reimburse the contractor for the costs of re-testing.



The Contractor shall be responsible for all testing during the crushing and screening operations.

Should the source contain insufficient material to meet the contract needs or should it become necessary for the Contractor, to change and/or select a new source, the Contractor shall be solely responsible for all costs and delays to the contract, unless such change is due to negligent actions of the Government.

The Contractor shall be responsible for all testing during the crushing and screening operations.

The Contractor shall be solely responsible for obtaining archeological and environmental clearances for his haul roads, material sources, and construction yards including all permits and associated costs. The Contractor shall be responsible for providing adequate traffic control on all haul roads in accordance with the MUTCD latest edition. The Contractor shall construct and/or maintain all haul roads into and from the source to the project. Any existing Government owned roads damaged by the Contractor's negligence or failure to abide by load restrictions shall be restored to original condition at the Contractor's expense. All haul road construction, maintenance (including dust control), traffic control including flaggers, and improvements will not be measured for payment but shall be considered a subsidiary obligation of the Contractor under the contract items requiring borrow and/or aggregate material.

The Contractor shall be solely responsible for obtaining archeological and environmental clearances for his plant site, haul roads, and construction yard including all necessary permits. The plant, haul roads, and construction yard development and maintenance shall not be measured for payment but shall be considered a subsidiary obligation of the Contractor under other contract items. Copies of such clearances and permits shall be furnished upon request of the AO.

**Commercial and/or other Material Source:**

The Contractor shall adhere to the requirements under these "Special Contract Requirements" with the following stipulations applied:

- A. The Contractor shall advise the AOTR (at least 5 working days in advance) of materials to be furnished from commercial sources.
- B. The Contractor shall, upon request, furnish aggregate quality test results from the proposed commercial source. This requirement will be considered fulfilled if the submittals for the product supplied contain the required information. The AOTR shall be afforded the opportunity to obtain verification test samples if requested.

**7. Payment to Contractor**

Payments to the Contractor shall be made within fourteen (14) calendar days after each progress pay estimate is approved by the AO. The progress pay estimate must include copies of the actual field book measurements taken, for each item of work requesting payment on, for verification by the AOTR. Unless other methods of payment are agreed to in writing, it is the responsibility of the Contractor (Superintendent) and AOTR to agree upon the amount of work and/or quantities in place which will be the basis of progress payment invoicing. The Contractor (Superintendent) shall prepare a progress pay estimate, sign the estimate, and forward the estimate reflecting the agreed upon work for a given pay period to the AOTR. The AOTR will verify the pay estimate by signing and forwarding the estimate to the AO within 3 working days of receipt. If the AOTR or Regional DOT Manager cannot validate the estimate, then the estimate shall be returned back to the Contractor for corrections and a new invoice prepared and submitted.

## 8. Determination and Extension of Contract Time

The 320 calendar days allowed for the performance of the contract is based on the work to be performed and weather conditions that are normally anticipated in the area that may prevent work. The 320 calendar days required to complete the work as specified takes into consideration 100 calendar days for weather conditions normal to the project area and provides adequate time for shutdowns during normal weather conditions including 1 winter suspension(s), and holidays. Time extensions because of weather conditions shall not be granted except in cases of unusually severe weather or "Acts of Nature" unanticipated by this contract.

The Contractor shall be required to obtain and submit, to the AO, climatological data for the area of the project, covering at least a ten year period, to receive consideration for any contention of unusually severe weather and time extension.

## 9. Shop Drawings and Certifications

**Certifications:** The Contractor shall be required to furnish certificate(s) of compliance (i.e. production certification) along with valid test reports, for all cements, fly ash, precast products, PVC pipe, corrugated steel, structural steel and hardware, reinforcing steel, asphaltic materials, wood posts and hardware for guardrailing, all permanent timber materials, aluminum signing materials, pavement markings and paints, traffic sign paint, paints and coatings for structural steel, high strength bolts, seed, piling, and other materials calling for painted surfaces, any other materials which require fabrication or materials taken from outside of the project limits, and for materials specifically requiring certificates of compliances by the construction plans or specifications. The Contractor shall be responsible to assure that the certificates of compliance have the following minimum requirements prior to submittal:

- the name and address of the manufacturer and/or supplier,
- the material production date,
- the project number (may be indicated on Contractor's cover letter),
- the contract number (may be indicated on Contractor's cover letter),
- a printed or written description of the end product or end use (as shown in the construction plans, specifications, or approved shop drawings),
- applicable sizes or dimensions of materials,
- printed or written statements as to what Contract specification the material is in conformance to (as specified in the FP-03, Contract plans and specifications, and/or approved shop drawings) with proper AASHTO or equivalent ASTM test results, heat numbers, and specified limits.

Certificates of compliance for material that do not conform to the specified AASHTO or equivalent ASTM specification shall not be submitted using the **Submittal Transmittal Review and Approval Form**, but shall be submitted by the Contractor under a **Letter of Request for Substitution** with justification to include a comparison of the proposed substitute material specification to the specified material specification showing equal to or better performance. The materials may not be used on the project until such time as the submission has been reviewed and accepted, in writing, by the Regional DOT Manager, through the AO as an equivalent substitution. The certificates of compliance shall be submitted directly from the supplier, through the Prime Contractor, to the Regional DOT Manager (via the AOTR) for review and approval prior to the materials being incorporated into the work. Certificates of compliance not containing all of the minimum requirements listed above, or certificates of compliance not conforming to the specified material specifications (i.e., substitutions) which are submitted under the Submittal Transmittal Review and

Approval Form, will not be reviewed by the Government and will be returned to the Contractor as DISAPPROVED. Full payment will not be made for work incorporating materials that require certificates of compliance until the material supplied on the project is matched by heat number or other identifying number to approved certificates of compliance by Quality Control subcontractor and AOTR. Materials supplied on the project that cannot be matched by heat number or other identifying number to approved certificates of compliance, or that are incorporated into the work prior to certificate of compliance approval, shall not be paid for.

The Contractor shall furnish product certifications for all other small quantity items which include fencing items, sign posts, delineators, object markers, reflective tabs, pavement markers, air entraining agents, concrete additives, joint materials, fertilizer, erosion control items, geotextiles, and any other products purchased off the shelf from a supplier. The certificates of compliance shall clearly identify the AASHTO/ASTM/or other specified standard test each product meets (as called for in the contract) as issued by the manufacturer.

Electrical items meeting UL approval, and underground utility materials meeting ASTM or AWWA specifications and so certified or stamped on the product, will require no further certificates of compliance.

The Contractor may furnish material purchased in bulk or left over from previous projects by submitting a product certification or certificate of compliance for the current project as outlined above.

**Shop Drawings:** The Contractor shall provide three (3) sets of shop drawings (full D size) and one set of electronic files in AUTOCAD (.dwg) or Microstation (.dgn) 2004 compatible format on CD for all bridge structural members and hardware, guardrail and barriers, cattleguards and hardware, wing bracing, retained earth walls, and any pre-cast or fabricated concrete or steel materials called for in the contract for review and approval prior to fabrication directly to the Regional DOT Manager. The Contractor shall allow at least four (4) weeks, from the time the shop drawings are received, for review and approval. The Regional DOT Manager shall reply to the Contractor's shop plans either as "Approved for Fabrication," "Approved as Marked," or "Resubmit/Disapproved".

Approval of any and all shop plans or drawings is rendered as a service only and is not considered a guarantee of measurements, quantities, and/or dimensions, nor shall it be considered as relieving the Contractor from complying with the contract specification and design plans.

#### **10. Furnishing of a Field Testing Laboratory**

The Contractor shall furnish, at a location convenient to the project site or asphalt plant site, a field laboratory which shall include utilities and sanitary facilities to satisfy the testing required by this contract.

The field laboratory shall be used by the Government's testing firm. The field laboratory shall have adequate supply of 110 volts, 60 cycle electricity for lighting, operating of testing equipment. Furnish a water supply for drinking and testing, which shall be a continuous pressurized system. The furnishing of this field laboratory shall be included in the unit price bid for mobilization.

No work requiring testing shall be permitted until the Contractor has furnished the above and the laboratory is ready to accept samples for testing by the Government's testing firm.

**11. Furnishing of Field Office and Sanitary Facilities**

The Contractor shall furnish, at locations convenient to the project site, one weatherproof building for the exclusive use of Government personnel for use as a field office. The building shall have, as a minimum, outside dimensions of 8 feet in width by 30 feet in length having a minimum ceiling height of 7 feet, at least two operable windows and two lockable doors, and adequate supply of 110 volt, 60 cycle electricity and phone service with fax capability for lighting, operating of office and computer equipment, and shall be heated and air-conditioned. Portable toilet facilities, serviced at least weekly, shall be furnished by the Contractor and removed when no longer required. In addition to the above general requirements for the building, the Contractor shall furnish a water supply for drinking, which shall be delivered either in a continuous pressurized system or an elevated gravity flow system of adequate capacity to fully support the facility being provided. The furnishing of the above facility (including utilities) shall be included in the unit price bid for mobilization.

**12. Asphalt Shipments**

All asphalt shipments to the project shall be in sealed tankers and this seal shall only be removed by an authorized representative of the AO. Any tanker with a broken seal or no seal shall be rejected and removed from the project.

When the bid schedule calls for payment of bituminous materials by the metric ton, the quantity used shall be determined by certified weight tickets accompanying each load subject to correction when bituminous material has been lost, wasted, or otherwise not incorporated into the work. Asphalt shipments shall be weighed across the project scales before and after unloading when requested by the AOTR. Should the project scales determine a weight less than the certified weight tickets show, the lesser quantity will be the pay quantity. Each weight ticket shall be clearly referenced to accompanying bill of lading and certified laboratory analysis report.

**13. Load Restrictions**

The total gross vehicle weight imposed on this project under this contract or any other Navajo Area route by any vehicle or combination of vehicles shall be as follows:

The Navajo Tribe has adopted vehicle weight limits that are more restrictive than those in the states of New Mexico, Utah, and Arizona. The weight limits of the Navajo Tribe shall apply to all BIA Navajo Regional roads and bridges within the Navajo Reservation unless a lesser limit is posted; then the lesser limit shall apply regardless of when the lesser limit was posted. Under certain circumstances, these limits may be exceeded, but only when the Contractor has applied for and received an approved permit to do so issued by the BIA Navajo Regional Office, Division of Transportation. The Contractor may make application for a permit to exceed weight limits from the Agency Road Engineer.

The State and Counties respective laws set the weight limits for roads under the jurisdiction of the counties and states. The Contractor is required to haul within these limits unless he has a permit from the applicable jurisdiction to haul above those limits. The Contractor shall be solely responsible for all damages to roads and bridges caused by hauling above the legal limits including any Subcontractors under this contract. All damages, regardless of jurisdiction, shall be repaired at the Contractor's expense to the satisfaction of the owner's standards and/or directives.

Title 14 - Chapter 4, Sections 607 & 608 of the Navajo Tribal Code as it relates to vehicle load limits is referenced (in metric) herein for the Contractor's convenience.

**Section 607. Load limits on Single-axles, wheels and tires**

- a) The gross weight imposed on the highway by the wheels of any one (1) axle of any one (1) axle of a vehicle shall not exceed 9809 kg, nor shall any one (1) wheel carry a load in excess of 4995 kg. Nor shall a tandem axle, carry load in excess of 15,585 kg.
- b) No wheel equipped with pneumatic, solid rubber, or cushion tires shall carry a load in excess of 272 kg for every 25mm of tire width. The width of pneumatic tires shall be taken at the manufacturer's rating. The width of solid rubber and cushion tires shall be measured at the flange of the rim.

**Section 608. Gross weight of vehicles and loads**

- (a) Subject to the weight limits imposed in section 607, the total gross weight with load of a vehicle or combination of vehicles with two or more consecutive axles shall not exceed the gross weight given for the respective distance between the first and last axles of measured longitudinally to the nearest 0.3 meters, as set forth in the following table:

Distance in meters between allowed load in (kg): first and last axles of group	on group of axles
1.2	14,512
1.5	14,512
1.8	14,512
2.1	14,512
2.4	14,966
2.7	15,419
3.0	15,873
3.3	16,190
3.7	16,508
4.0	16,825
4.3	19,592
4.6	19,955
4.9	20,317
5.2	20,680
5.5	21,043

- (b) The total gross weight with load imposed on the highway by any vehicle or combination of vehicles where the distance between the first and last axles is more than 5.45 meters shall not exceed that given for the respective distance given in the following table:

Distance in meters	Allowed load in (kg)
5.8	21,406
6.1	21,769
6.4	22,131
6.7	22,494
7.0	22,857

7.3	23,220
7.6	25,057
7.9	25,442
8.2	25,828
8.5	26,213
8.8	26,599
9.1	26,984
9.4	27,370
9.7	27,755
10.0	28,140
10.4	28,526
10.7	28,911
11.0	29,297
11.3	29,682
11.6	30,068
11.9	30,839
12.2	31,746
12.5	32,653
12.8-15.5	32,780
15.8	33,379
16.1	33,741
16.4	34,104
16.8	34,467
17.0 & over	34,830

- (c) The distance between axles shall be measured to the nearest (0.3m). When a fraction is exactly one-half foot (152mm) the next larger whole number shall be used.

The Contractor shall be responsible for all damages caused by his or her supplier's hauling units on any State and Bureau owned highway. All damages shall be repaired at the Contractor's expense to their original condition.

#### 14. Plans and Specifications

Due to excessive costs incurred by the Government in printing, the Government will no longer be providing plans and specifications for its projects to suppliers and/or subcontractors. The Government shall provide a maximum of 5 full sized (D size) or 5 half sized (C size) sets of plans upon request. In addition or in lieu of plans sets, the Government shall furnish one full sized and one half-size set of reproducible, or electronic media in Autocad Release 2004 format from which the Contractor may produce drawings.

Any Prime Contractor bidding on Government contracts is responsible for providing its Subcontractors and Suppliers with information relating to their respective disciplines for cost proposals. Any misinterpretation or incorrect bids made to the Prime Contractor by the Subcontractor or Suppliers will not relieve the prime Contractor of his obligation to the contract or his bid proposal.

**15. Archeological Requirements**

The Contractor shall be responsible for all environmental and archaeological requirements as outlined in both the Navajo Nation Historic Preservation (HPD) Office Programmatic Agreement for archeological discovery procedures, and NEPA regulations as may be described in this contract and/or shown on the design plans. Archeological sites shown on the plans are not to be disturbed by any construction equipment. The Contractor shall insure that no equipment comes within 5 meters of any known sites identified on the plans. Any mitigation measures that may be called for in this contract (excluding hiring of an archeologist for construction oversight) to protect archeological sites and/or environmental concerns during construction shall be paid for under the appropriate bid items shown. For those archaeological sites that are within the roadway right-of-way (i.e. refer to design plans) the contractor shall conduct the grading operations ONLY with an HPD archeologist present. The contractor shall contact Mr. Peter Kakos, HPD Roads Archaeologist, prior to any construction within the area of the site(s), so that an HPD archaeologist can be present during construction. For further information, the Contractor shall call the HPD office at (928)871-7688. If any unknown arch sites are discovered during construction, it will be the responsibility of the government to mitigate in accordance with section 106 of the NHPA.

**16. Construction Requirements:**

- A. The contractor is not permitted to park heavy equipment within 15 meters of existing drainage washes to prevent the leakage of oils or other toxic materials from entering the waters of the United States. The contractor is required to inspect all heavy construction equipment each day to insure all equipment is free of leaks and have a mitigation plan in place in case a toxic spill does occur. Any inadvertent discharge of toxic materials by the contractor's equipment and operations shall result in an immediate halt of work until the Contractor cleans up all spills and/or leaks in accordance with the EPA regulations at his entire expense. The Contractor shall also be required to immediately notify the BIA Safety Officer and Navajo Regional Environmental Scientist when such spills or leaks occur.
- B. All pipe installations shall be performed during low to no flow periods of runoff to minimize water quality impacts to the fullest extent possible.
- C. In no case shall any grading or pipe installation or other ground disturbing work begin until the contractor's Storm Water Pollution Prevention Plan has been reviewed, accepted through the AO and implemented by the Contractor. The Contractor is required to file a Notice of Intent with USEPA on the forms provided in Section J, *Attachment, Environmental & Archeological Clearance Requirements – R/W Terms & Conditions* and as discussed in paragraph (17) below. The Contractor shall provide copies of the approved SWPPP to the Navajo Nation Environmental Protection Agency (NNEPA).
- D. Waste concrete and/or hot mix shall be disposed of in accordance with EPA regulations off the project site. In no case shall any wasting or stockpiling of concrete and/or hot mix be allowed within the project limits.

- E. The Contractor shall provide a parking area for employee's private vehicles. Private vehicles are not to be parked within the road right-of-way that is open to public traffic nor shall they be parked within 15 meters of drainage washes or known archeological sites. Vehicles may be parked outside the right-of-way limits provided the Contractor is given permission by the land user or tribe or may park the vehicles within the Contractor's construction yard.
- F. The Contractor shall coordinate all utility relocations (where applicable) with the utility owners in accordance with section 107.02 as incidental obligations under this contract.
- G. The Contractor shall stockpile the existing top soil for use in re-vegetation of borrow pits and roadway slopes to the fullest extent possible when required in the bid schedule or other permit requirements issued under tribal regulations.
- H. The Contractor's camp site and construction yard shall be kept clean and free of litter at all time to prevent debris and litter from entering bodies of water. All trash will be disposed of in accordance with EPA regulations and all camp sites and construction yards shall be restored to their pre-construction condition or better at project completion in conformance with the permit requirements and tribal laws.
- I. Oils, lubricant, fuel, and hydraulic fluids shall be stored in sealed containers or in facilities that meet EPA regulations for prevention of environmental contamination.
- J. Other requirements as outlined in Section J, *Attachments, Environmental & Archeological Clearance Requirements – R/W Terms & Conditions* of this contract.
- K. **Substantial Completion** will ONLY be given by the AO when the project is complete such that it can be safely and effectively used by the public without further delays, disruption, or other impediments as recommended by the AOTR during a substantial completion inspection. For conventional bridge and highway work, this is the point at which all road grading, bridge deck, parapet, pavement structure, shoulder, drainage, sidewalk, permanent signing and markings, traffic barrier, safety appurtenance, utility, and lighting work is complete and meets all the contract requirements.
- L. **Final Acceptance** will be given when all work is completed (including any punch list of items) and the AOTR determines and schedules a final acceptance inspection with the Contractor, AO, and Regional DOT Representatives as appropriate. With the exception of any work accepted as final, in writing by the AO, the Contractor is still responsible for all the work until a final acceptance is given by the AO based on recommendations from the AOTR.

17. **Environmental Requirements:**

Certain environmental clearances and permits are attached in Section J, *Attachments, Environmental & Archeological Clearance Requirements – R/W Terms & Conditions* of



these contract documents as reflected in the design plans in accordance with section 107.01. The Government shall be responsible for those mitigation measures required by the NEPA documents that are not covered in this contract. The Contractor is responsible for all environmental permits associated with the Contractor's construction operations.

Both the Contractor and AOTR are jointly responsible for filing **Notice of Intent** (unless otherwise directed by the AO or as defined elsewhere in this contract) under the National Pollution Discharge Elimination System (NPDES) permit requirements to USEPA. Under this permit process the contractor is required to and shall:

- A. Prepare for review and approval, by the AOTR & Regional DOT Manager, a Storm Water Pollution Prevention Plan (SWPPP) per section 157 and the requirements in Section J, *Attachments, Environmental & Archeological Clearance Requirements – R/W Terms & Conditions*.
- B. When the SWPPP is approved, the AOTR will file **Notice of Intent** as the owner and a copy of the notice shall be provided to the contractor to file with his Notice.
- C. Once the Contractor receives notice that his SWPPP is approved, he shall, with assistance from the AOTR, prepare the contractor NPDES Permit **Notice of Intent** form in section (k) and shall mail to the USEPA along with the AOTR's **Notice of Intent** form no later than 48 hours prior to beginning of actual construction. The address is as follows:

Regular U. S. Mail Delivery  
Storm Water Notice of Intent  
Mail Code 4203M  
U.S. EPA  
1200 Pennsylvania Avenue  
Washington, DC 20460

Overnight/Express Mail Delivery  
Storm Water Notice of Intent  
Room 7329  
U.S. EPA  
1201 Constitution Avenue  
Washington, DC 20004

The USEPA will mail back a copy of the permit for the project and a copy shall be furnished to the AOTR and Regional DOT Manager to insure compliance.

- D. At completion of the project and final inspection has been performed, the Contractor shall then prepare and submit to the USEPA a **Notice of Termination** with a copy submitted to the AOTR and Regional DOT Manager to insure compliance.

(Note: The above forms can also be obtained from the USEPA's home page  
on the Internet: <http://www.epa.gov/npdes/stormwater/cgp>)

**DEPARTMENT OF LABOR**

**GENERAL DECISION NO.:  
NM080002 07/25/2008 NM2**

**NEW MEXICO - HIGHWAY**

General Decision Number: NM080002 07/25/2008 NM2

Superseded General Decision Number: NM20070002

State: New Mexico

Construction Type: Highway

Counties: Catron, Chaves, Cibola, Colfax, Curry, De Baca, Eddy, Grant, Guadalupe, Harding, Hidalgo, Lea, Lincoln, Luna, McKinley, Mora, Otero, Quay, Rio Arriba, Roosevelt, San Juan, San Miguel, Sandoval, Sierra, Socorro, Taos, Torrance, Union and Valencia Counties in New Mexico.

STREETS, HIGHWAY, UTILITY AND LIGHT ENGINEERING: Construction shall include the construction, alteration, repair and demolition of roads, streets, highways, alleys, sidewalks, curbs, gutters, guard rails, fences, parkways, parking areas, airports (other than building thereon), bridle paths, athletic fields, highway bridges, median channel and grade separation involving highways; parks, golf courses, viaducts; uncovered reservoirs and uncovered sewage and water treatment facilities; canals, ditches and channels (including lining other than concrete linings); earth dams under one million (1,000,000) cubic yards; well drilling, telephone and electrical transmission lines and site preparations which are part of streets, highway, utility and light engineering projects; and shall include construction, alteration, repair, and demolition of utilities such as sanitary sewers, water lines, gas lines, including appurtenances thereto such as lift stations, inlets, manholes, sewer lagoons, septic tanks and service outlets (stubouts) providing such utility construction is outside the property line or five (5) feet from a building or heavy engineering structure, including the Navajo Indian Reservation.

Modification Number	Publication Date
0	02/08/2008
1	07/25/2008

\* SUNM1992-001 10/21/1992

	Rates	Fringes
CARPENTER.....	\$ 8.11	.44
CEMENT MASON/CONCRETE FINISHER...	\$ 8.18	.26
ELECTRICIAN.....	\$ 17.00	2.35
IRONWORKER, REINFORCING.....	\$ 7.96	.50
IRONWORKER, STRUCTURAL.....	\$ 9.36	1.29
LABORER		

## GROUP 1

Common laborer; carpenter tender; concrete buggy op. (hand); concrete workers.....\$	6.55	.35
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## GROUP 2

Air & power tool man; asphalt heaterman; asphalt jointman; asphalt raker; batching plant scaleman; tenders (to cement mason & plasterer); chain sawman; concrete power buggyman; concrete touchup man; concrete sawman; curbing machine, asphalt or cement; cutting torchman; metal form setter-road; grade setter; hod carrier; mortar mixer & mason tender; powderman or blaster tender; sandblaster; scaler; Vibratorman (hand type); vibrator compactor (hand type); wagon air tract, drill & diamond driller (outside) & tender.....\$	6.55	.35
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## GROUP 3

Guniting pumpcrete & nozzleman; multiplate setter; manhole builder; pipelayer; powderman- blaster-make-up.....\$	6.55	.35
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## LINE CONSTRUCTION: Cable

## Splicer

## AREA A

Zone I.....\$	19.47	2.70+3.75%
Zone II.....\$	21.06	2.70+3.75%
Zone III.....\$	22.13	2.70+3.75%
Zone IV.....\$	24.07	2.70+3.75%

## AREA B

Zone I.....\$	15.49	1.80+3.75%
Zone II.....\$	17.54	1.80+3.75%

## AREA C

Zone I.....\$	16.78	2.25+3.75%
Zone II.....\$	17.23	2.25+3.75%
Zone III.....\$	17.38	2.25+3.75%
Zone IV.....\$	17.63	2.25+3.75%

## COMMERCIAL LINE WORK

## LINE CONSTRUCTION: Equipment

Operator (includes helicopter  
operator)

## AREA A

Zone I.....	\$ 16.81	2.70+3.75%
Zone II.....	\$ 18.40	2.70+3.75%
Zone III.....	\$ 19.47	2.70+3.75%
Zone IV.....	\$ 21.41	2.70+3.75%
COMMERCIAL LINE WORK		
LINE CONSTRUCTION: Groundman		
AREA A		
Zone I.....	\$ 12.57	2.70+3.75%
Zone II.....	\$ 14.16	2.70+3.75%
Zone III.....	\$ 15.23	2.70+3.75%
Zone IV.....	\$ 17.17	2.70+3.75%
AREA C		
Zone I.....	\$ 11.68	2.25+3.75%
Zone II.....	\$ 12.13	2.25+3.75%
Zone III.....	\$ 12.28	2.25+3.75%
Zone IV.....	\$ 12.53	2.25+3.75%
COMMERCIAL LINE WORK		
Line Construction: Equipment		
Mechanic (includes helicopter		
mechanic)		
AREA A		
Zone I.....	\$ 16.81	2.70+3.75%
Zone II.....	\$ 18.40	2.70+3.75%
Zone III.....	\$ 19.47	2.70+3.75%
Zone IV.....	\$ 21.41	2.70+3.75%
AREA B		
Zone I.....	\$ 12.83	1.80+3.75%
Zone II.....	\$ 14.53	1.80+3.75%
COMMERCIAL LINE WORK		
Line Construction: Equipment		
Operator and Mechanic		
(includes helicopter operator		
& mechanic)		
AREA C		
Zone I.....	\$ 14.31	2.25+3.75%
Zone II.....	\$ 14.76	2.25+3.75%
Zone III.....	\$ 14.91	2.25+3.75%
Zone IV.....	\$ 15.16	2.25+3.75%
COMMERCIAL LINE WORK		
Line Construction:		
Groundman-Jackhammer		
AREA B		
Zone I.....	\$ 10.47	1.80+3.75%
Zone II.....	\$ 11.86	1.80+3.75%
COMMERCIAL LINE WORK		
Line Construction:		
Lineman/Line Technician		
AREA A		
Zone I.....	\$ 17.70	2.70+3.75%
Zone II.....	\$ 19.29	2.70+3.75%
Zone III.....	\$ 20.36	2.70+3.75%

Zone IV.....	\$ 22.30	2.70+3.75%
AREA B		
Zone I.....	\$ 15.05	1.80+3.75%
Zone II.....	\$ 17.03	1.80+3.75%
AREA C		
Zone I.....	\$ 16.45	2.25+3.75%
Zone II.....	\$ 16.90	2.25+3.75%
Zone III.....	\$ 17.05	2.25+3.75%
Zone IV.....	\$ 17.30	2.25+3.75%
COMMERCIAL LINE WORK		
Line Construction: Powderman		
AREA A		
Zone I.....	\$ 15.40	2.70+3.75%
Zone II.....	\$ 16.99	2.70+3.75%
Zone III.....	\$ 18.06	2.70+3.75%
Zone IV.....	\$ 20.00	2.70+3.75%
AREA B		
Zone I.....	\$ 12.39	1.80+3.75%
Zone II.....	\$ 14.03	1.80+3.75%
AREA C		
Zone I.....	\$ 13.82	2.25+3.75%
Zone II.....	\$ 14.27	2.25+3.75%
Zone III.....	\$ 14.42	2.25+3.75%
Zone IV.....	\$ 14.67	2.25+3.75%
COMMERCIAL LINE WORK		
Line Construction		
UTILITY FOR ELECTRIC &		
TELEPHONE UTILITIES, REA		
CO-OPS, RAILROADS &		
MUNICIPALITIES		
Cable Splicer.....	\$ 18.75	2.95+3.75%
Equipment Operator &		
Mechanic (includes		
helicopter operator and		
mechanic).....	\$ 15.24	2.95+3.75%
Groundman - Jackhammer.....	\$ 11.91	2.95+3.75%
Lineman/Technician.....	\$ 17.52	2.95+3.75%
Powderman.....	\$ 14.72	2.95+3.75%
PAINTER		
Brush.....	\$ 8.64	.91
Spray.....	\$ 9.09	.20
Plumbers and Pipefitters		
All irrigation & lawn		
sprinkler work.....	\$ 7.80	3.09
AREA I.....	\$ 17.94	4.99
Specific Area.....	\$ 18.74	4.99
Power Equipment Operator		
GROUP 1		
Concrete paving curing		
machine.....	\$ 8.06	.26
GROUP 10		

Pipemobile op., mole op....\$ 10.51	.26
GROUP 2	
Belt type conveyors (material & concrete); broom (self-propelled); fork lift; grease truck op.; head oiler; hydro life; tractor (under 50 drawbar HP with or without attachment); industrial locomotive brakeman; front end loader (2 CY or less); fireman; oiler; screedman; roller (pull type); mulching machine; roller (self-propelled)....\$ 8.26	.26
GROUP 3	
Concrete paving form grader; concrete paving gang vibrator; concrete paving joint or saw machine; concrete paving subgrader; tractor with backhoe attachment; subgrade or base finisher; power plant (electric, general or welding machine).....\$ 8.84	.26
GROUP 4	
Bulldozer (including self- propelled roller with dozer attachment; batch or continuous mix plant (concrete soil-cement or asphalt); roller (steel wheel) front end loader (2 CY through 10 cy); scraper; motor grader.....\$ 8.86	.26
GROUP 5	
Asphalt distributor; asphalt paving or laydown machine; asphalt retort heater; mixer, heavy duty, asphalt or soil cement; trenching machine; clam-type shaftmucker; backhoe, clamshell, dragline, gradall, shovel (under 3/4 CY); elevating grader or belt loader; cranes (crawler or mobile) under 20 ton; air compressor (300 CFM 7 over); crushing screening & washing plants; drilling	



machine (cable, core or rotary); mixer, concrete (1 CY & less); pump (6" intake or over); winch truck; hoist (1 drum); industrial locomotive motorman, lumber stacker; tractor (50 drawbar HP or over).....\$	8.86	.26
GROUP 6		
Concrete paver mixer; hoist (2 drum & over); side boom; traveling crane; piledriver; backhoe, clamshell, dragline, gradall, shovel (3/4 CY to 3 CY); cranes (crawler or mobile) 20 ton to 40 ton; front end loader (over 10 CY); mixer concrete (over 1 CY); mechanic and/or welder.....\$	9.01	.26
GROUP 7		
Concrete slip-form paving machine; concrete paving finishing machine; concrete paving longitudinal float; gunite machines; refrigerator; jumbo form or drilling; stage; slusher; concrete paving spreader; pumpcrete machine; grout pump op.....\$	9.06	.26
GROUP 8		
Mine hoist; bulldozer (multiple units); scraper (multiple units); mucking machines; backhoe, clamshell, dragline, gradall, shovel (over 3 CY); cranes (crawler or mobile).....\$	9.21	.26
GROUP 9		
Belt loader (CMI type) op.; derrick cableway.....\$	9.71	.26
TRUCK DRIVER		
Diesel-powered transport; lowboy heavy equipment.....\$	7.35	.26
Distributor (asphalat; transit-mix; lowboy, light equipment; off-high hauler; dump truck over 16 cubic yards; trailer semi-trailer dump.....\$	7.15	.26

Dump truck, 8 to 16 cubic yards; flat bed over 1 1/2 ton.....\$	6.95	.26
Pick-up truck 3/4 ton or under; warehouseman; dump truck under 8 cubic yards; flat bed, 1 1/2 ton or under.....\$	6.75	.26

AREA AND ZONE DEFINITIONS COMMERCIAL LINE WORK (excluding work done for electric & telephone utilities, REA co-ops, railroad & municipalities);

AREA A - Also applies to switching stations & substations adjacent to power plants. Catron, Chaves, Cibola, Colfax, Curry, Debaca, Grant, Guadalupe, Harding, Lincoln, McKinley, Mora, Quay, Rio Arriba, Roosevelt, Sandoval, San Juan, San Miguel, Sierra, Socorro, Taos, Torrance, Union, Valencia, and those portions of White Sands Missile Range and Fort Bliss in Otero County, New Mexico

ZONE 1 - Cities & Towns Basing Points & Miles from Main Post Office

Roswell	-	12 miles
Ruidoso	-	12 miles
Las Vegas	-	8 miles
Portales	-	12 miles
Farmington	-	6 miles
Carrizozo	-	12 miles
Raton	-	6 miles
Clovis	-	12 miles
Tucumcari	-	6 miles
Gallup	-	10 miles

ZONE II - Extending up to 20 miles beyond Zone I, EXCEPT ALBUQUERQUE, rates per hour shall be increased by 9% of the journeyman rate of Zone I

ZONE III - Extending up to 30 miles beyond Zone I, EXCEPT ALBUQUERQUE rates per hour shall be increased by 15% of the journeyman rate of Zone I

ZONE IV - Anything beyond 30 miles from Zone I, EXCEPT ALBUQUERQUE rates per hour shall be increased by 26% of the journeyman rate for Zone I.

For establishing the outlying free zones from the Albuquerque free zone only, Zone II shall extend up to 10 miles beyond Zone I, Zone III shall extend up to 20 miles beyond Zone I and Zone IV anything beyond 20 miles from Zone I.

AREA B - Applies to switching stations & substations adjacent to power plants in Zone I & Zone II in Luna, Dona Ana, Otero & Hidalgo Counties, exclusive of those portions of White Sands Missile Range and Fort Bliss in Dona Ana County, New Mexico.

ZONE I - that area within 25 miles radius from the downtown

Office of El Paso, Texas, Fort Bliss & Biggs Field; the area within a 5 mile radius of any city, town or municipality within which an employer establishes or maintains his place of business; the area within 10 mile radius from the Post Office in Alamogordo, New Mexico.

ZONE II - all other areas of the jurisdiction except those specified in Zone I.

AREA C - Applies to switching stations adjacent to power plants in Eddy & Lea Counties; the following zones listed shall be designated from the Main Post Office of Artesia, Carlsbad, Hobbs & Lovington:

Zone I - 0 to 12 miles

Zone II - 12 to 22 miles

Zone III - 22 to 40 miles

Zone IV - 40 miles & beyond

PLUMBERS & PIPEFITTERS AREA DEFINITIONS:

AREA I: Alamogordo, Artesia, Belen, Bernalillo, Carlsbad, Clovis, Deming, Espanola, Estancio, Farmington, Gallup, Grant, Hobbs, Las Vegas, Lordsburg, Los Lunas, Lovington, Moriarty, Portales, Raton, Rio Rancho, Ruidoso, Silver City, Santa Rosa, Santa Teresa, Socorro, Taos, Tucumcari,

Truth or Consequence, Artesia, Carlsbad, Hobbs, and Lovington.

AREA I - SHALL INCLUDE A DISTANCE OF ELEVEN (11) ROAD MILES INCLUSIVE BEYOND THE CITY OR TOWN LIMITS FOR THE CITIES OR TOWNS LISTED ABOVE AS BASING POINTS.

Specific Area: Los Alamos, White Rock, South Mesa, McGregor Range, White Sands Missile Range and/or Proving Grounds

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.  
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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

## **PLANS & SPECIFICATIONS**

**REVISIONS & SUPPLEMENTAL SPECIFICATIONS  
TO DIVISION 100 THROUGH 700 OF:**

**“STANDARD SPECIFICATIONS FOR  
CONSTRUCTION OF ROADS AND BRIDGES  
ON FEDERAL HIGHWAY PROJECTS”**

**(FP-03)**

rev:09-24-2008

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**SECTION 101 - TERMS, FORMAT, AND DEFINITIONS**

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**101. 04**      **Definitions:** Add and/or replace the following terms with their respective definitions:

**Engineer.** -- Wherever the term "Engineer" is used in division 100, the construction plans, or elsewhere in the specifications, it is changed to read "Awarding Official".

**Awarding Official (AO).** The AO is the duly authorized representative of the government who is authorized to enter into contracts and agreements and is responsible for awarding of P.L. 93-638 construction contracts and the administering thereof, including determination of findings, issuing cure notices, contract terminations, and stop work order. Under P.L. 93-638 contracts, the term CO referred to in the FP-2003 means the AO.

**Awarding Official's Technical Representative (AOTR).** -- The AOTR is the duly authorized representative of the AO, and will act for the AO in administering the P.L. 93-638 contract through written delegation. The AOTR's duties and responsibilities are delineated by letter from the AO to the AOTR with a copy sent to the Contractor. Under P.L. 93-638 contracts, the term COR referred to in the FP-2003, Special Contract Requirements, supplemental specification, and construction plans means the AOTR.

**Major Floods.** Major floods are define as wide spread flooding encompassing and inundating an area of 1300 hectare or more with water and debris within and adjacent to the project site.

**Substantial Completion.** Will ONLY be given by the AO when the project is complete such that it can be safely and effectively used by the public without further delays, disruption, or other impediments as recommended by the AOTR during a substantial completion inspection. For conventional bridge and highway work, this is the point at which all road grading, bridge deck, parapet, pavement structure, shoulder, drainage, sidewalk, permanent signing and markings, traffic barrier, safety appurtenance, utility, and lighting work is complete and meets all the contract requirements.

**Final Acceptance.** Will be given when all work is completed (including any punch list of items) and the AOTR determines and schedules a final acceptance inspection with the Contractor, AO, and Regional DOT Representatives as appropriate. With the exception of any work accepted as final, in writing by the AO, the Contractor is still responsible for all the work until a final acceptance is given by the AO based on recommendations from the AOTR.

The following definition is superseded with the following:

**Unsuitable Material** - Material not capable of creating stable foundations, embankments, drainage structure installations, retaining wall construction, or roadbeds. Unsuitable material may include muck, sod, or soils with high organic and/or high PH (low resistivity) contents depending upon the materials proposed use on the project.

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**SECTION 103- SCOPE OF WORK**

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Subsection 103.03 is superseded with the following:

**103.03      Changes, Differing Site Conditions, and Variation in Estimated Quantities.**

The following FAR Clauses are supplemented with the following:

Any adjustments in contract time and cost because of changes, differing site conditions, or variation in estimated quantities shall be in accordance with section 108.03 for the following:

- (a)      Changes. - See Contract Clause 52.243-4.
- (b)      Differing Site Conditions. - See Contract Clause 52.236-2
- (c)      Variation in Estimated Quantities. - See Contract Clause 52.211-18

**103.05      Partnering.**

The third paragraph is superseded with the following:

If the partnering offer is accepted, mutually agree with the Government on the level of organizational involvement and the need for a professional to facilitate the partnering process. The Contractor shall engage a qualified facilitator and other resources for key Contractor and Government staff to attend a partnership development and team-building workshop at least 30 days prior to given A Notice to Proceed. Hold additional progress meetings upon mutual agreement.

To insure that all the work under this contract including any special contract requirements are adequately addressed and properly coordinated, attendance at the first partnering meeting shall include the Contractor's Construction Manager, Project Superintendent, Project Foremen, Sub-contractor representatives, Supplier representatives, QCM, Alternate QCM and QC Inspectors/Technicians. The Government key personnel that will attend the first partnering meeting are Awarding Official, AOTR Project Manager, Agency monitoring crew, Regional staff engineers and technicians, and Government Inspectors/Technicians. The above key personnel shall attend any other subsequent meeting(s) deemed necessary by both parties.

The Government will invite utility owners, environmental and archeological staff to the first partnering meeting and/or any other subsequent meeting(s) deemed necessary.

Add the following new subsection:

**103.06      Value Engineering.** Follow the requirements of FAR Clause 52.248-3 Value Engineering Construction.

Before undertaking significant expenditures, provide the AO with a written description of the value engineering change proposal (VECP) concept. Within 14 days, the AO will inform the Contractor as to whether the concept appears to be viable or if the concept is unacceptable. If the AO indicates that the concept appears to be viable, prepare and submit the formal VECP proposal.



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**SECTION 104 - CONTROL OF WORK**

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**104.04      Coordination of Contract Documents:**

The last sentence is superseded with the following:

The contract documents govern in the following order:

- (a) Public Law 93-638, as amended
- (b) 25 CFR Part 900, as amended
- (c) 25 CFR Part 170, as amended
- (d) Negotiated Federal Acquisition Regulations
- (e) Special Contract Requirements
- (f) Supplemental Specifications
- (g) Standard Specifications
- (h) Plans

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SECTION 106 - ACCEPTANCE OF WORK

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**106.01      Conformity with Contract Requirements.**

Add the following:

All applicable sections in the latest edition (as referenced in the FP-03) with updates of the Federal Lands Highway, Field Materials Manual (FLH) shall apply to the work under this contract. If any requirements in the FLH that conflict in either the FP-03, or these supplemental specifications, then the FP-03 and these supplemental specifications shall prevail.

**106.04      Measured or Tested Conformance.**

The second paragraph of this section is superseded with the following:

Results from Government testing and inspection (as specified in the contract) will be used to support or reject the work incorporated into the project as specified within the tolerances and/or specified limits within the contract. When no tolerance values are identified in the contract, the work shall be inspected, tested, and accepted based on customary manufacturing and construction standards.

**106. 05      Statistical Evaluation of Work for Acceptance and Determination of Pay Factor (Value of Work).**

The first sentence of paragraph (a) is superseded with the following:

**(a) General.** For work accepted based on statistical evaluation, both the Government and Contractor assume some risk. Unless otherwise specified in the contract, it is the responsibility of the AOTR and/or Navajo Region Division of Transportation (NRDOT) Manager to conduct the analysis described and furnish the Contractor with the results that shall be used for determination of acceptance of the work and pay factors based under this section.

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**SECTION 107 - LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC**

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**107.02      Protection and Restoration of Property and Landscape.**

Add the following to paragraph three:

Unless otherwise modified in writing by the AO, the construction clearing limits shall be (depending upon the type of project) the cut or fill limits shown on the plan and profile drawings, or staking notes provided plus 3 meters, or the new Typical Section width plus 3 meters for pavement rehabilitation projects. At bridges, culverts, furrow ditches, turnouts, existing road obliteration, fencing or other structures the limits shall be the minimum needed to construct the improvement as determined by the AOTR. In no case shall any work be done outside the right-of-way limits without prior approval from the Navajo Region Division of Transportation (NRDOT) Manager and AO.

Only remove vegetation that is necessary to construct the project and all its features. The Contractor shall use due care in his clearing and grubbing operations so as not to destroy vegetation that is not required for removal to the fullest extent possible.

**107.06      Contractor's Responsibility for Work.**

The third paragraph is superseded with the following:

The Government will only be responsible for losses, injuries, and damage cause by declared enemies and terrorists of the United States Government and cataclysmic natural phenomenon such as tornadoes, earthquakes, major floods, and federally declared natural disasters by the United States Government. The Government will only be responsible for costs attributable to repairing or replacing damaged work. The Government will not be responsible for delay costs, impact costs, or extended overhead costs.

**107.10      Environmental Protection.**

Add the following to the first sentence of the first paragraph:

The Clean Air and Clean Water Acts is supplemented as follows:

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**SECTION 108 - PROSECUTION AND PROGRESS**

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**108.04      Failure to Complete Work on Time.**

Add the following to Paragraph two:

Under this P. L. 93-638 contract, the Contractor shall include Liquidated Damages Clauses in their subcontracts and assess Liquidated Damages in the amount specified in Table 108-1 to any sub-contractor for each day beyond the time allowed to complete the contract work, until final acceptance of the work is given. The Liquidated Damages shall be assessed when the entire work cannot be completed due to delays as a result of any actions or inactions taken by any sub-contractor. The Government's share of these damages shall be paid (through a contract modification adjustment) to offset the costs incurred as a result of the delays. The Government's share shall be based on government project expenditures reports furnished by the AOTR through the AO.

Paragraph three is deleted.

**108.05      Stop Order.**

Paragraph two is superseded with the following:

No adjustment in contract time or amount will be made for stop orders issued under (a) or (b). And adjustment in contract time may be made when the Contractor is able to demonstrate that the weather was unusually severe based on the most recent 10 years of certified historical data provided by the Contractor.

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SECTION 109 - MEASUREMENT AND PAYMENT

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**109. 01      Measurement of Work.**

Add the following:

The metric unit of measure shall prevail in both measurement and payment of items as shown in the bid schedule. However this does not preclude the contractor from furnishing the English units equivalent for materials incorporated into the work from suppliers. The contractor shall be responsible for any mis-alignment and any other problems arising out of such conversions.

**109.02      Measurement Terms and Definitions.**

Subparagraph (a) is superseded with the following:

**(a) Contract quantity.** The quantity to be paid is the quantity shown in the bid schedule (designated as ACQ) and is the final quantity to be paid. The contract quantity will be adjusted for authorized changes that affect the quantity or for errors made in computing this quantity. If there is evidence that a quantity specified as a *contract quantity* is incorrect, submit calculations, drawings, or other evidence indicating why the quantity is in error and request, in writing, that the quantity be adjusted.

Add the following subsection:

**(m) Contingent sum.** Perform the work only when authorized by written order. The work will be measured and paid for at agreed unit prices, lump sum prices, or force account as established in the order authorizing the work. When the unit bid price is designated "contingent sum", the quantity is designated as "All".

**109. 03      Weighing Procedures and Devices.**

Add the following:

All scales shall be re-certified annually or after each time they are moved, or as directed in writing by the O/AO. Provide scale certification documents to the AOTR or SAOTR.

The first sentence of subparagraph (c) is superseded with the following:

**(c) Project weighing system.** Furnish, erect, and maintain acceptable scales.

Paragraphs 6 and 7 of subparagraph (c) are superseded with the following:

For pay quantities based on weight, an automatic printer hooked up to the scales shall be provided that shall provide the following information for each weighing, or manually weigh and record masses with the same information below:

- (1) Project Number
- (2) Item number and description
- (3) Date
- (4) Time

- (5) Ticket number
- (6) Haul unit number
- (7) Gross Weight (haul unit and mass); to the nearest 50 kilograms
- (8) Tare Weight (haul unit); to the nearest 50 kilograms
- (9) Net Weight (mass); to the nearest 50 kilograms
- (10) Accumulated total net mass for all haul units since the beginning of the shift

The Contractor shall weigh the empty weight of vehicles with full fuel tanks hauling materials weighed on platform scales at the start of the day's operations, then at noon time. If the vehicle is replaced with another one during the operations, then the new vehicle shall be weighed empty with full fuel tanks and at the end of the day's operations.

Paragraph 8 is superseded with the following:

Furnish competent scale operator(s) to operate the system when materials are Contractor-furnished from his own pit/source. Otherwise, the Contractor's commercial supplier shall furnish a competent scale operator(s) when materials are furnished from a commercial pit/source.

Add the following to paragraph 10 in subparagraph (c):

The Contractor shall furnish the certified Accumulated Total Net Mass record to the AOTR the following workday.

#### **109.04 Receiving Procedures.**

The last paragraph is superseded with the following:

Furnish the original record(s) and a written certification of the delivery to the AOTR or SAOTR at the end of each shift. If any delivery report(s) does not contain the signature of the spread person or missing delivery report(s) cannot be found or missing loads cannot be accounted for shall not be paid.

#### **109.05 Scope of Payment.**

Add the following to subparagraph (b):

This also includes work that is identified in the contract specifications as being incidental to other items of work or work called for in the specifications for which a bid items is not provided.

#### **109.06 Price of Adjustments.**

Paragraph (b)(2) – Overhead is superseded with the following:

**(2) Overhead.** The overhead rate(s) that apply to the prime Contractor under this contract is 30% of the total direct labor costs. For all subcontract work, identify overhead rate(s) and provide supporting data, which justifies the rate(s). List the types of costs, which are included in overhead. Identify the cost pool(s) to which overhead is applied. Apply the overhead to the appropriate pool.

Limit Contractor overhead applied to subcontractor payments to 5 percent of such payments unless a higher percentage is justified.

Paragraph (b)(3) is superseded with the following:

**(3) Profit.** Except when precluded by the FAR, the profit shall be 8% of the total direct costs reflecting the efficiency and economy of the Contractor and subcontractors in performing the work, the contract risk type, the work difficulty, and management effectiveness and diversity.

For work priced after all or most of the work is performed, profit is limited by statute to 10 percent of the total direct cost provided this rate can be justified.

Add the following paragraph to subparagraph (b):

**(4) Bonding.** The rate charged by any Contractor or subcontractor under this contract is 1% of the total cost of the work or any modification work unless a higher rate can be justified.

Paragraph 109.06(1)c is superseded with the following:

*(c) Equipment.* Provide a complete descriptive listing of equipment including make, model, and year of manufacture. Support rented or leased equipment costs with invoices. Determine allowable ownership and operating costs for contractor and sub-contractor-owned equipment as follows:

*(1)* Use actual equipment cost data when such data can be acceptably determined from the Contractor's or sub-Contractor's ownership and operating cost records taking into account depreciation.

*(2)* When actual costs cannot be determined, use the rates shown in the *Blue or Green Book* (where applicable) published by Data Quest for the area where costs are incurred. Adjust the rates for used equipment and for other variable parameters used in the schedules.

*(3)* Compute proposed standby costs from acceptable ownership records or when actual costs cannot be determined, according to the *Blue or Green Books*. Do not exceed 8 hours in any 24-hour period or 40 hours in any calendar week. Do not include standby for periods when the equipment would have otherwise been in an idle status or for equipment that was not in operational condition.

Add subparagraph (c) as follows:

**(c) Construction Price adjustments.** The AO will consider price adjustments for material and other subcontractor price increases during the life of the contract based on a detailed price adjustment written request from the Contractor with supporting documentation.

#### 109.08

#### Progress Payments.

Subparagraph (b) is superseded with the following:

**(b) Closing date and invoice submittal date.** On the first (1st) and 15th of each month or the following work day should these dates fall on a weekend or holiday, the AOTR will

prepare and submit a pay estimate to the Contractor for approval on a form acceptable to both the Contractor and Government.

Subparagraph (c) is superseded with the following:

**(c) Invoice requirements.** Submit the progress pay estimates to the government's designated billing office in accordance with the following requirements:

(1) The pay estimate will be reviewed and approved (in writing) by both the Contractor's and government's field representative (AOTR) prior to submission to the NRDOT Office for approval and processing. Any errors found in the pay estimate by NRDOT staff shall result in the progress pay estimate being returned to the Contractor and/or AOTR for corrections and re-submission. With the exception of other requirements in this section, only the approved pay estimate itself shall be submitted for further processing to the NRDOT office.

(2) A tabulation of total quantities and unit prices of work accomplished or completed, and accepted, on each pay item as of the bi-weekly closing date will be determined by the AOTR to validate (by closing date) the pay estimate request. Only quantities verified with field note documentation, tested, and accepted (which includes certifications required by Subsection 106.03) will be on the pay estimate unless otherwise agreed to by the AOTR.

Subparagraph (d) is superseded with the following:

**(d) Government's receiving report.** The Government's receiving report will be developed using the measurement notes determined by the AOTR. Within 7 days after the closing date, the AO and/or AOTR will be available by appointment at the Government's designated office to advise the Contractor of quantities and unit prices appearing on the Government's receiving report.

Progress payments may include partial payment for material to be incorporated in the work, provided the material meets the requirements of the contract and that the Contractor includes in his request, a signed statement from the AOTR that the materials have been inspected and appear to meet the project specifications and match the quantities given in the pay estimate.

Add the following to subparagraph **(f) Partial payments:**

For stockpiled aggregates, the Contractor's request must include test results indicating compliance with the specifications to verify the request. The materials must be delivered on or in the vicinity of the project site and/or stored in acceptable storage places to be considered for partial payment.

## 109.09

### **Final Payment.**

Add the following to paragraph two (2):

Final payment of the contract should be made no later than **120 days** from the date of Final Acceptance and verification of final pay records.



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SECTION 152 - CONSTRUCTION SURVEY AND STAKING

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152.01

**Description:**

The following sentence supersedes the first sentence of the second paragraph:

Personnel, equipment, material, and survey notes shall conform to the following:

Subparagraph (a) is superseded with the following:

**(a) Personnel.** Furnish a technically qualified survey crew capable of performing the work in a timely and accurate manner. The survey crew shall be under the supervision of a Registered Land Surveyor (RLS) with a survey crew supervisor having at least 10 years of experience in highway construction survey and staking. The survey crew supervisor shall be on the project at all times during the survey and staking of each item of work and during the measurement of each pay item. The Contractor shall furnish resumes on all members of the survey crew and the RLS to the NRDOT Division Manager, through the AOTR for review and approval.

Add subparagraph (d) to the second paragraph:

**(b) Survey Notes.** Furnish survey notes for the Survey and Staking Requirements:

**(1) Roadway cross-sections.** Complete roadway cross sections are not required for pavement rehabilitation projects. For this project, the Contractor shall provide the "as staked" centerline alignment and existing centerline profile survey data in both hard copy and electronic ASCII format. Include existing cross sections in areas calling for embankment construction up to the right-of-way lines when the volume exceeds 2500 cubic meters. The data files shall consist of stations, Point Number, Northing, Easting, Elevation, and Feature Code (P, N, E, Z, C) that identifies ground points, break lines, and centerline alignment strings which must include PI's, PC's, PT's, bearings, all curve data, and distances with a copy of the feature label coding table file used (if the government furnished coding .xin file table format is not used) and must be capable of being read in the InRoads 8.8 software under Microstation.

**(2) Slope stakes and references.** Furnish only blue top (top of base coarse) staking and reference notes in hand written field books and/or electronic formatted output as agreed upon with the AOTR

**(3) Other survey and staking requirements.** Furnish other survey and staking notes in hand written field books in an agreed upon format with the AOTR.

152.02

**General:**

Add the following paragraph after the first paragraph:

The Contractor is authorized to proceed with construction survey and staking upon approval of the Survey Quality Control Plan even though the Notice to Proceed has not yet been issued. The Contractor shall conduct all survey and staking during the presences of a representative of the AO. All survey data, including verification of existing control, the proposed alignment, and profile for review and approval before any further staking work can proceed.

The following sentence supersedes the first sentence of the fifth paragraph:

Before surveying or staking, discuss and coordinate the following with the AOTR:

The following paragraph supersedes the seventh paragraph:

The Contractor shall prepare field notes in an agreed upon format with the AOTR. The RLS shall review and certify the original copies of all survey notes at least weekly unless otherwise directed in writing by the AOTR. All original survey notes (certified by the RLS) shall be submitted weekly copies to the AOTR and shall become the property of the Government upon completion of project.

The Government will withhold payment in the event the Contractor fails to furnish survey notes and calculations that measure and demonstrate work performed. The Contractor's submittal of their survey notes have should have no errors otherwise; the Government will send back the submittal for corrections at the entire expense of the Contractor.

**152.03 Survey and Staking Requirements:**

Add the following paragraphs to subparagraph (b) Roadway cross-sections:

When full grade and drain earthwork is called for, the Contractor shall field survey the **original** ground cross-sections, and/or existing pavement surface between centerline alignment and the proposed and/or existing right-of-way limits, to the maximum interval station and point spacing specified. The Contractor shall submit the **original** ground cross-section survey data, with the RLS certification before full grading work begins. See section 152.01(d)(1) for staking and cross section requirements of pavement rehabilitation projects.

Perform the same procedure as outlined above for the **final** as-built subgrade cross-sections (subgrade blue-top), up to the right-of-way limits (including all cut/fill slope sections) prior to placement of aggregate base course material. The data must exclude any waste or other stockpiles within the right-of-way limits. The Contractor shall furnish the final as-built subgrade cross-section survey data with the RLS certification to the COR/AOTR for compliance. For pavement rehabilitation projects, only furnish final cross sections in the areas requiring embankment construction.

**(c) Slope stakes and references.** The first sentence is superseded with the following:

Using an electronic level instrument, set slope stakes and references on both sides of centerline at the cross-section locations. Use of GPS equipment for slope staking is not allowed.

Add the following:

When earthwork is called for in the contract documents, submit the revised, government furnished, hard copy slope stake notes at completion of the slope staking operations to the AOTR/COR & QCM for review and approval. The slope stake notes shall reflect the actual measurements in the field in red pencil or pen.

For pavement rehab projects, the Contractor is required to set slope stakes as required to construct the roadway finish surface to match the proposed typical section closely matching

the existing profile, supers, and horizontal alignment (as determined by the Contractor and Government) . Clearly readable copies of the slope stake notes are to be submitted to the AOTR within 2 days of completing the slope staking operations.

Any substantial deviations in the staking from what is shown on the government approved survey data must immediately be reported to the AOTR for corrective measures to be taken.

Subparagraph (g) is superseded with the following:

**(g) Drainage structures.**

The Contractor shall stake drainage structures to fit existing field conditions. The location of the structures may differ from that shown on the design plans. The Contractor shall provide replacement drainage structures in the lengths shown on the bid schedule.

Add the following subparagraph:

(m) For rehabilitation projects, the Contractor shall re-locate all existing right-of-way monuments (as reflected in the **existing** right-of-way map) and insure the "*English*" stationing is placed on the reference markers (i.e., angle irons) as defined in the bid schedule with a specific bid item for this work. For new road construction projects, and if bid items are shown in the bid schedule for installation of new right-of-way monuments and/or reference markers, stake the right-of-way monuments as shown in the design plans and label the reference markers with stationing in metric. Stamp or furnish the true state plane coordinates and elevations on the brass caps for all right-of-way monuments in metric regardless of the type of project unless directed otherwise by the AOTR.

**152.05 Acceptance:**

Add the following paragraph:

The AOTR will make all the computations (with detailed and clear sketches as determined by the AOTR) based on the surveys for any items of work requiring measurements (except for the final earthwork items as outlined in Subsection 204.16) or for periods for which progress payments are requested and record these calculations and sketches.

**152.05 Measurement:**

Add the following paragraph:

All work outlined and required in this section, including surveying for roadway construction, bridge construction, slope staking, retaining walls, reference and clearing and grubbing staking, centerline re-establishment, blue topping, drainage structure survey and staking, grade finishing stakes (subgrade and aggregate base), right-of-way monument and marker location surveying and staking, quantity measurements, and miscellaneous surveying and staking shall be measured by the lump sum.

**152.06 Payment:**

This section is superseded with the following:

The accepted quantities, measured as provided in Section 152.05, Measurement, above, will be paid at the contract price per unit of measurement for the pay item listed below and as shown in the bid schedule beginning with the Notice to Proceed issued. Payment will be full compensation for the work prescribed in Section 152, Construction Survey and Staking.

When the bid schedule does not contain a bid item for Construction Survey and Staking, then it shall be considered incidental obligations to completion of the items of work described in the bid schedule.

Item 15201, as measured above, will be paid as follows:

(a) 50% of the lump sum, will be paid following completion of the necessary alignment and profile staking work and furnish copies of these staking notes to the COR/AOTR (hand written and electronic format).

(b) An additional 25% of the lump sum, will be paid following complete staking of the drainage structures and approval of the revised drainage structure list submittal in accordance with the outline under **Subsection 152.03(g) Drainage structures**.

(c) The remaining 25% of the lump sum, will be paid when the staking and surveying needed for all other items of work are completed and the Contractor submits all the original survey field books to the COR/AOTR.

Payment will be made under:

	Pay Item	Pay Unit
15201-0000	Construction Survey and Staking	Lump Sum

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## **SECTION 153- CONTRACTOR QUALITY CONTROL**

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**153.01 Description.**

This Section is superseded with the following:

This work consists of the Government furnishing an AASHTO certified laboratory to obtain samples for quality control testing, perform tests for Government quality control, provide construction inspections, enforce contract specifications, ensure construction plans are followed and exercise management control to ensure that all items of work conform to the contract requirements.

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**SECTION 154--CONTRACTOR SAMPLING AND TESTING**

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**154.01      Description.**

This Section is superseded with the following:

This work consists of the Government obtaining samples for testing and reporting required test results to the Contractor.

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**SECTION 155 -SCHEDULES FOR CONSTRUCTION CONTRACTS**

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**155.02 General.**

The first sentence of the third paragraph is superseded with the following:

Use the Bar Chart Method (BCM) as described below to develop the construction schedule for the total contracted work.

**155.03 Bar Chart Method (BCM).**

Add the following subparagraph (c):

(c) Under P.L. 93-638 contracts, the Contractor shall provide a Construction Schedule (bar chart) meeting the requirements of 25 CFR Part 900.130 (c) (7) (ii) taking into account the requirements of 155.03(a). Submit **3 copies** of the construction schedule at the preconstruction conference. Allow **14 days** for acceptance or rejection of the construction schedule or a revised schedule. If rejected, submit a revised schedule within 5 days. **Do not begin work**, except mobilization and traffic control work, without an accepted construction schedule. The Contractor shall update this Construction Schedule as necessary (during the life of the project) to reflect any delays, change in schedules, and revisions to activities shown and furnish a copy to the AOTR and/or NRDOT Manager when necessary for review and approval/disapproval back to the Contractor through the AO. The preparing, furnishing and updating of this bar chart schedule shall not be measured for payment but shall be a subsidiary obligation of the Contractor. Failure to provide the government with an updated construction schedule, for review and acceptance prior to continuation of work, may result in the AO issuing a cure notice and/or stop work order.

Review and acceptance of any and all construction schedules is rendered as a service only and is not considered a guarantee of the work being completed within the contract time or delays as a result of the work under the schedule(s), nor shall it be considered as relieving the Contractor from complying with the specifications and other requirements in this contract.

**155.04 Critical Path Method (CPM).** This subsection is deleted in its entirety.**155.09 Payment.**

This subsection is superseded with the following:

The development and updating of the construction schedule will not be measured for payment but shall be considered an incidental obligation of the Contractor under this contract.

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**SECTION 156 -PUBLIC TRAFFIC**

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**156.03      Accommodating Traffic During Work.**

The first paragraph is superseded with the following:

The Contractor shall prepare a Traffic Control Plan (TCP) in accordance with Section 635, the MUTCD latest edition, and the details shown in the construction drawings and submit for review and acceptance. Accommodate traffic according to the approved TCP, the MUTCD, Section 635, and this section.

**156.08      Traffic and Safety Supervisor.**

The first sentence of the first paragraph is superseded with the following:

Provide a traffic and safety supervisor who is certified by a federal or other acceptable certification program (i.e. FHWA, TRB, or ATSSA). Provide current copies of the certifications to the AOTR for review and approval. The certifications must be no older than 2 year.

rev:03/05/09



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Section 157. - SOIL EROSION CONTROL

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## 157.01 Description.

This paragraph is superseded with the following:

This work consists of developing a **Storm Water Pollution Prevention Plan (SWPPP)**, implementing and maintaining this plan to control erosion, pollution, sediment, and runoff during the construction of the project, use of borrow pit, haul roads, construction yards, and aggregate/soil stockpiles.

## 157.03 General.

The second paragraph is superseded with the following:

The storm water pollution, erosion, sediment, and runoff control details in the contract plans reflect special measures to be considered in the SWPPP for the project. The Contractor shall prepare and submit to the NRDOT Manager a SWPPP in compliance with all 401, 402, and NPDES permit applicable requirements (in full details, hand sketches not allowed) and reflecting the requirements in the contract plans and specifications in such detail that the plan will adequately address the potential for erosion of soil and other pollutants into the waters of the USA, on the entire project, due to each phase of the Contractor's grading and drainage operations. The SWPPP must be prepared by a **qualified registered professional engineer or a qualified storm water pollution prevention specialist** with the certificates and registration incorporated into the SWPPP. The SWPPP shall show measures to control erosion, runoff, sediment, and pollutants (to the fullest extent possible) and shall further address the following:

1. Measures to be taken at the toe of fill slopes (i.e. silt fencing, straw bales, etc.) that have the potential of eroding into the waters of the USA. This includes all slopes steeper than 1:3. However, this does not preclude the use of erosion control measures taken on slopes flatter than 1:3 depending upon the soil type and its erosive potential as directed by the AOTR.
2. Measures to be taken in cut sections to preserve the back slopes and shoulder ditches from eroding into the waters of the USA. This includes placement of silt fencing spaced every 60 meters maximum (or as shown on the plans) in the cut ditches. Place straw bales along the upper ridge lines of the cut slopes or use of wattles to redirect runoff away from cut slopes. **The use of straw bales in cut ditches is not permitted.** See also subsection 157.04(H).
3. Measures to be taken to protect all live streams, lakes, ponds, creeks, and wetlands from sediment infiltration in accordance with the contract plans and 404 wetland permit and EA requirements.
4. Details of sediment control structures (facilities) and locations where runoff is temporarily being diverted from its natural course;
  - A. Structures utilizing compacted earth material shall be composed of material free of roots, woody vegetation, excessive rocks, and other objectionable materials. The construction shall be in accordance with section 157.06(b).
  - B. The slopes of any settling basin shall be 1:3 or flatter. All settling basins shall have safety fence (1.2 meters in height snow fence or equivalent) enclosing them.
  - C. Measures for maintaining all sediment control facilities at all times of the day and night.

5. Measures for diversion dikes to be constructed at the end of each day's operation, as necessary, around all drop inlets to divert runoff into existing sediment basins (traps) or into outfall chutes.
6. Measures to install permanent erosion and sediment controls as soon as practical when sections of final grading and drainage work is complete.
7. Other erosion and pollution control measures and permits required due to the nature of the contractor's construction sequencing and procedures including temporary turf establishment, temporary mulching, type of erosion control materials to be used, and installation procedures for such things as (but not limited to):
  - A) protection of soil and aggregate stockpiles.
  - B) protection of temporary cut and fill slopes
  - C) protection for detour roads.
  - D) temporary watering ponds.
  - E) protection of top soils.
  - F) protection of waters from pollutants

8. A **Construction Sequencing Plan (CSP)** that addresses each phase and location of the grubbing, grading, and drainage work to take place over the course of the contract.

The erosion and pollution control measures installed shall remain in place and be continuously maintained until the permanent measures (i.e. seeding and mulching of slopes, outlet protections, channel lining, etc) are completed. The Contractor can remove any SWPPP features at their discretion once all the permanent erosion control features are in place and accepted for those completed areas of the project. Failure to properly maintain the SWPPP may result in a violation of the Clean Water Act with possible fines levied by the USEPA. The Contractor shall have 5 working days from given notice of non-compliance to correct the problems. Failure to bring the work under this section into compliance within 5 working days of non-compliance notice will be cause for the Government to begin deducting the prorated progress payments for this work from the contract.

If field conditions change as a result of the contractor's construction operation which cause the SWPPP to be ineffective, then the Contractor shall revise the SWPPP and resubmit for review and approval. No work within the areas of deficiencies, identified by the QC inspector's and/or BIA project management personnel, shall be allowed until the revised SWPPP is approved and implemented.

Any deviations to the approved SWPPP shall be requested in writing at least 14 calendar days before implementation for review and approval. Minor adjustments in the approved SWPPP are allowed to meet actual field conditions. Any major deviation from the approved SWPPP will result in a notice of violation of the Clean Water Act where fines may be levied by the USEPA.

If the AOTR finds that the SWPPP is not providing sufficient erosion control protection, the Contractor shall be required to stop all work in the area and revise his SWPPP to address the problems immediately and when the revised SWPPP is approved, immediately implement the changes.

Allow 30 calendar days for review and approval of the initial SWPPP in accordance with Subsection 104.03.

#### 157.04

#### **Controls and Limitations on Work.**

The first paragraph is superseded with the following:

Before grubbing and grading work begin, the contractor shall construct all pollution, erosion, and sediment control measures around the area to be worked on including any perimeter erosion and sediment control measures. This shall include the construction of sediment traps, filter barriers, diversion dikes, silt fencing, and settling structures as required by the approved SWPPP.

Paragraph three is superseded with the following:

Construct erosion control and sediment control measures as follows:

Construct erosion control and sediment control measures as follows:

- A) Construct temporary erosion controls in incremental stages as construction proceeds in accordance with the **Construction Sequencing Plan (CSP)**.
- B) Construct temporary slope drains, diversion channels, and earth berms to protect disturbed areas and slopes as reflected in the approved erosion control plan.
- C) Apply permanent turf establishment (i.e. seeding & mulching) in accordance with section 625 on sections of completed slopes and other disturbed areas within 10 days of final grading.
- D) Construct temporary outlet protection on all new and existing culverts and other drainage structures in accordance with the details shown in the contract plans and the approved SWPPP.
- E) Construct permanent erosion controls (as shown in the contract plans and specifications) including waterway linings, slope treatments, gabions, riprap, and permanent sediment traps within 20 days of completion of the roadbed and/or drainage structures.
- F) Apply permanent turf establishment and landscaping to finished slopes and ditches according to section 624 through 629 as required.
- G) Construct and maintain erosion controls on and around all soil and aggregate stockpiles within the project limits to prevent soil loss into the waters of the USA.
- H) During each day's grading operations, shape and roughen all embankment slopes to minimize and control erosion from storm runoff as follows:

1. For cut and fill slopes run a bulldozer or other approved track equipment up and down the slope to create grouser tracks parallel to the roadway leaving small (approximately 51mm in depth) valleys in which water can be trapped (see design drawings for further details). This work is an incidental obligation of the contractor under item 15714.

2. Place straw mulch (as required) to cover all completed slopes (and other disturbed areas) that cannot be traced under (1) above. Crimp the mulch by running a bull dozer up and down the slope or use a polymer tackifier if crimping is not possible. This method of slope protection shall also be used when permanent seeding cannot be completed within 10 days of final grading. Placing of straw mulch, tackifier, and crimping shall be an incidental obligation of the Contractor under item 15714 unless separate bid items are shown in the bid schedule. The mulch shall be applied at a rate of 4500kg/ha. Apply tackifier at a rate of between 44-67kg/ha or as recommended by the manufacturer.

The first paragraph is superseded with the following:

The qualified Erosion Control Representative (ERR) assigned by the Contractor in writing, responsible for implementation of the SWPPP shall inspect all erosion control features and facilities at least once every week, within 24 hours after more than 10mm of rain in a 24-hour period, and as required by the approved SWPPP and required SWPPP US EPA permitting requirements. The Contractor's Erosion Control Specialist responsible for the preparation of the SWPPP shall perform monthly inspections with the AOTR and ECR of the project and provide a report of his findings to the AOTR within 3 days after the inspection.

**157.13** Maintenance and Cleanup. The third paragraph is superseded with the following:

Remove and dispose of all remaining temporary erosion control measures (SWPPP) two weeks prior to final inspection and clean up all debris. Remove and dispose of erosion control measures according to subsection 203.05.

**157.15** Measurement.

Add the following:

It is estimated that approximately 50 meters of silt fence, and 20 meters of straw bales and/or wattles or sand bags will be required for the project. However, this does not preclude the Contractor from using any or all of the other measures shown in the design plans and/or measures required in the Contractor's SWPPP as a result of the construction sequencing. Those measures required by the Contractor's SWPPP shall be included in the unit price bid for erosion control.

Temporary straw mulching shall be measured by the hectare (ha) in place. Any secondary applications or touch ups as directed by the AOTR shall not be measured for payment but shall be incidental obligations under this items of work.

**157.16** Payments.

Add the following:

When the bid schedule does not contain a bid item for this work, it shall be considered incidental obligations of the contractor under other bid items of work where no additional payment shall be made.

When soil erosion control is bid by the Lump Sum, payment shall be made as follows:

(A) 25 percent of the Lump Sum, not to exceed 0.5% of the original contract amount shall be paid after all required erosion control measures sufficient to begin construction as determined by the COR/AOTR are in place.

(B) Payment for the remaining portion of the Lump Sum shall be prorated based on the total work completed, provided the additional and necessary erosion control measures are constructed, maintained, and accepted.

Payment will be made under:

**Pay Item**

**Pay Unit**

15701-0000 Soil Erosion Control.....	Lump Sum
15708-1000 Temporary Straw Mulching.....	Hectare

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**SECTION 204- EXCAVATION AND EMBANKMENT**

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**204.04 Preparation for Roadway Excavation and Embankment Construction.**

Add the following:

Earthwork construction requiring compaction shall not be performed unless the air temperature is 4° C and rising (taking into account the wind chill factor) and the top 305mm of ground and/or roadway embankment (including all backfill placed) temperature must be a minimum of 4°C in the shade. The AOTR shall make the final determination as to whether earthwork construction can proceed or not.

**204. 07 Subexcavation:**

The first sentence is superseded with the following:

Excavate unsuitable material and replace with select borrow meeting the requirements of section 704.07 to a depth of 610mm from existing subgrade or natural ground, and to the limits designated by the AOTR. The sub-excavation work shall be measured and paid for at the contract unit price for Roadway Excavation, item 20401, as applicable. The select borrow shall be measured and paid for at contract price for item 20403 as applicable. When items for roadway excavation or select borrow is not in the bid schedule, measurement and payment shall be in accordance with section 109.02(m) or other approved methods.

**204. 10 Embankment Construction:****(b) Embankment within the roadway prism.**

The first sentence, in the first paragraph, is superseded with the following:

Place earth in horizontal layers not exceeding 300 millimeters loose measurement.

Add the following:

In no case shall any embankment lift material be placed upon frozen, muddy, or unstable natural ground or existing embankment. If existing subgrade or natural ground is wet and/or unstable due to conditions not attributable to the contractor's operations, it shall be plowed and/or scarified to a depth of 457mm and aerated before compacting (in accordance with section 204.11) as directed by the AOTR. This work shall be measured and paid for under the roadway excavation items in the bid schedule. When items for roadway excavation is not in the bid schedule, measurement and payment shall be in accordance with section 109.02(m) or other approved methods. Any subgrade and/or natural ground that is wet or unstable as a result of the contractor's construction operations shall be stabilized as described above at the Contractor's entire expense.

For pavement rehabilitation projects, unless subgrade soil treatment is called for, existing embankment soil classification tests under table 204-1 are not required.

**204. 11 Compaction:**

The first sentence is superseded with the following:

For the purpose of compaction, AASHTO T 27 will be used to determine the amount of material retained on a 4.75-millimeter sieve.

Subparagraph (b) and (c) are deleted and superseded with the following:

**(b) Less than 80 percent retained on a 4.75-millimeter sieve.**

The material will be classified according to AASHTO M 145. For material classified A-1 or A-2-4, the maximum density will be determined according to AASHTO T 180, method D. For other material classification, the maximum density will be determined according to AASHTO T 99, method C.

Adjust the moisture content of material classified A-1 to A-5 to a moisture content suitable for compaction. Adjust the moisture content of material classified A-6 and A-7 to within 2 percent of the optimum moisture content. Use compression-type or vibratory rollers. Compact each layer of material full width to at least 95% of the maximum density.

**204.13 Sloping, Shaping, and Finishing:**

Add the following to subsection 204.13(d):

Remove all material larger than 150mm from the top 305 mm of finished roadbed and replace it as required with suitable material. The top surface of the finished subgrade shall not vary more than +/-15mm from finished blue top staking in both transverse (full width of roadway) and longitudinal directions (every 20 meter station maximum) and be continuously maintained in accordance with section 156 for public traffic until project completion. Continuously maintain all roadside ditches for proper drainage until final acceptance of project.

**204.15 Acceptance:**

The first sentence is deleted.

Add the following to the second paragraph:

All government computed final earthwork quantities shall be based on Contractor furnished final cross sections taken on the roadway, channel, borrow areas, and roadway prism cut and embankments in the final position shown graphically and in electronic printouts and data files specified in section 152. Any over built roadway typical embankments and/or cuts (not authorized by the AO) shall be deducted from the final earthwork quantities. The NRDOT Highway Design Section will take the Contractor's final survey data to determine the final earthwork quantities and furnish the results to the AOTR and Contractor through the AO.

**204.16 Measurement:**

Subparagraph (c) (1) is superseded with the following:

(1) Include the following volumes in embankment construction:

- (a) Roadway embankments that are in reasonable close conformance with the contract typical sections.
- (b) Material used to backfill sub-excavated areas, holes, pits, and other depressions.
- (c) Material used to restore obliterated roadbeds to original contours.
- (d) Material used for dikes, turnouts, and ditch blocks not paid under separate bid items.

**204.17**

**Payment:**

Add the following paragraph:

For periodic progress payment purposes, contract bid items for roadway excavation and borrow can be done by an approved load count method as agreed to (**in writing**) by the Contractor and AOTR and NRDOT Division Manager.

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**SECTION 209- STRUCTURE EXCAVATION AND BACKFILL**

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**209.04      General.**

The last sentence is superseded with the following:

Compact the foundation in accordance to Subsection 209.11.

**209.09      Bedding.**

Add the following:

The AOTR must approve the bedding material before the material can be used.

**209. 10      Backfill.**

**(b) Pipe culverts.**

Add the following:

The AOTR must approve the backfill material before the material can be used.

**209.11      Compacting.**

This subsection is superseded with the following:

Compact material placed in all layers to at least 95% of the maximum density. Adjust the moisture content of the backfill material to a moisture content suitable for compaction.

No density requirements shall be made to material that is incapable of being tested (per AASHTO T 99 and 310) or compacted. For these materials, fill the voids around the rock in each layer with earth or other fine material. Compact each layer, full width, until there is no visible evidence of further consolidation.

**209.12      Acceptance.**

The first sentence is deleted.



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**SECTION 301--UNTREATED AGGREGATE COURSES**

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**301.03      General.**

Paragraph one is superseded with the following:

Seven (7) calendar days before the placement of any aggregate base material, the Contractor shall notify the AOTR or SAOTR in writing advising the area(s) and location(s) where the base material will be placed. Immediately, prepare the final roadbed surface according to Section 204 or 303 as applicable. The AOTR and/or SAOTR, QCM, and Contractor shall jointly check the final roadbed surface area(s) and location(s) for any defects. If defective areas are noted, correct all areas with moisture/density control. The above construction personnel shall recheck the entire final roadbed surface area(s). When approved and accepted by the government, the Contractor can place aggregate base material. The Contractor shall place aggregate base material only at government approved area(s) and location(s).

Paragraph two and three are deleted.

**301.04      Mixing and Spreading.**

Add the following:

The aggregate base material shall be placed on an approved, firm and stable roadbed in a continuous uniform layer or windrow. The layer or windrow shall be of such size that when spread and compacted the thickness of the finished layer shall conform to the nominal thickness shown on the plans or a thickness determined by the AOTR or SAOTR.

Aggregate base shall be constructed on a dry, unfrozen surface where the air temperature is 4° C and rising (taking into account the wind chill factor) and the top 305mm of finished subgrade must be 4° C minimum in the shade. The AOTR shall make the final determination as to whether the work can proceed.

When the weather conditions (just prior to aggregate base placement) is foggy, showers, rain, snow, or the surface temperature drops below 4° C such that the ground is freezing (i.e. appearance of frost), no aggregate base course materials shall be placed.

Where aggregate base course is placed on geotextile materials, in order to prevent damage to the geotextile materials, the Contractor shall not process the bottom 51mm (2-inches) of the lower lift.

**301.05      Compacting.**

This section is superseded with the following:

Compact each layer full width. Roll from the sides to the center, parallel to the centerline of the road. Along curbs, headers, walls, and all places not accessible to the roller, compact material with approved tampers or compactors. Compact each layer to at least 95% of maximum density (AASHTO T 180, method D).

**301.06 Surface Tolerance.**

The first paragraph is superseded with the following:

Grade finishing stakes are required with the windrow placement process. Finish the final surface to within 10mm from staked line and grade elevations. The surface tolerance shall be checked by the string line method. Defective areas or surface deviations that do not meet the above tolerance shall be corrected. If spot dumping of base material is necessary to meet the staked line and grade elevation(s), this material shall be added to the existing base material by scarifying down 76mm (3-inches), mix, blend, and process with moisture/density control (as required under subsection 301.05). Finish to the staked lines and grade elevation(s) and recheck for surface tolerance. This work shall be considered incidental obligations of the Contractor.

**301.07 Maintenance.**

Add the following:

This work shall be performed during construction and periods of suspended work as required under Subsection 107.06.

If the roadway with aggregate base course in place is used by traffic before the final surfacing is placed, it shall be maintained in a safe and adequate manner as directed by the AOTR/SAOTR. Prior to the placement of the next base course layer, pavement layer or application of the prime coat, the aggregate base course in-place shall be checked (by QCM, AOTR/SAOTR and Contractor) for defective areas. If defective areas are found, these areas shall be corrected to meet the requirements of subsections 301.05 and 301.06. This work shall be incidental obligations of the Contractor where no additional payment shall be made.

**301.08 Acceptance.**

The sentence pertaining to Table 301-1 is deleted.

The second paragraph is superseded with the following:

Aggregate gradation and surface course plasticity index shall be evaluated under Subsection 106.04 Measured or Tested Conformance. Other aggregate quality properties will be evaluated under Subsection 106.02 and 106.04.

Subparagraph (a) is superseded with the following:

**(a) Aggregate gradation.** The upper and lower specification limits are the values shown in Grading (D), Table 703-2 as modified in these supplemental specifications.

Materials, which fail to meet the aggregate gradation specification limits, shall be corrected by the Contractor by adding coarse and/or fine aggregate to bring the material into specification limits. The AOTR will sample and test the corrected processed material. Repeat the corrective work until the aggregate base course gradation is within the upper and lower specification limits under Grading (D). Once the Contractor can show compliance with the contract requirements, then the material on the roadway, including any added aggregates shall be paid for at the full contract unit price. No separate payment for the added

labor, overhead, traffic control, and equipment costs for adding coarse and/or fine aggregates shall be made but shall be an incidental obligation of the Contractor to bring the aggregate base course into contract aggregate gradation specification.

**301.09 Measurement.**

This subsection is superseded with the following:

When the bid schedule calls for the aggregate base course to be measured by the metric ton, only the natural moisture in the material will be included for payment. Should the Contractor add water before weighing (prewet), then the weight of the added moisture shall be deducted by the AOTR and QCM before payment is made.

No separate measurement and payment for the corrective work (i.e. additional labor, overhead, traffic control, and equipment costs) shall be made but shall be an incidental obligation of the Contractor to bring the aggregate base course into contract aggregate gradation specification. Once the material has been corrected to meet the specifications, then the material on the roadway shall be measured for payment at full contract price.

Any aggregate base material that is wasted, wasted along the shoulders, over-built of roadway prism, material not used on the project and/or is not a part of the aggregate base course roadway prism shall not be measured for payment. The AOTR will determine and use a method of measuring the waste; measure any over-built of the roadway prism and make the appropriate adjustments in the quantities before payments are made.

**301.10 Payment.**

The first paragraph is superseded with the following:

The accepted quantities, measured as provided above, will be paid at the contract unit price bid of which price and payment will be full compensation for the work prescribed in this section. See Subsection 109.05.

Roadbed preparation/reconditioning will be measured and paid for as specified under Section 204, 212, and/or 303, as applicable and as specified in the design plans. If there is no pay item in the bid schedule for roadbed preparation/reconditioning, then this work shall be considered incidental to completion of the project and no additional payment will be made.

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**SECTION 404.-MINOR HOT ASPHALT CONCRETE****Construction Requirements****404.02                    Composition of Mix (Job-Mix Formula).**

This subsection is superseded with the following:

Provide a hot asphalt concrete mix composed of crushed stone or gravel and asphalt binder mixed in an approved plant. Use an aggregate gradation and asphalt binder of a quality conforming to those normally used locally by either Federal or State agencies for the type of work being constructed. The aggregate gradation for the crack and joint sealing shall meet Grading F of Table 703-4. The statistical procedures shall not apply. The aggregate gradation for the minor hot asphalt concrete mix which will be used on the main roadway over the corrugated steel pipes and new turnouts shall meet either Federal or State agency specifications.

At least 30 days before placement and production, submit three (3) copies of the mix design which shows the strength, quality, and gradation specifications. Include copies of laboratory test reports that demonstrate the properties of the aggregates, asphalt binder, additives, and mix meet Federal or State agency specifications. Also submit the maximum specific gravity (density) of the mix as determined by AASHTO T 209.

**404.07                    Compacting.****(a) Roadway paving.**

This paragraph is superseded with the following:

Compact the mix to a minimum of 90% of maximum specific gravity (density). Complete compaction before the mix temperature falls below 70°C (158°F).

**404.08                    Pavement smoothness.**

This paragraph is superseded with the following:

Defective areas are surface deviations in excess of 8mm (5/16-inch) in 3 meters (10 feet) between any two contacts of a 3 meter (10 feet) straightedge with the surface. Correct defective areas using approved methods, as approved by the AOTR.

**404.09                    Acceptance.**

This subsection is superseded with the following:

Minor hot asphalt concrete mixture and construction work will be evaluated and accepted under Subsection 106.02 and 106.04.

**404.10 Measurement.**

This subsection is superseded with the following:

Minor hot asphalt concrete mixture will be measured by the metric ton which shall include the asphalt binder, additives, mineral filler (if any) and aggregates. Only hot asphalt concrete mix used and accepted will be measured for payment.

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**SECTION 416.- CONTINUOUS COLD RECYCLED ASPHALT CONCRETE**

Delete this section in its entirety and substitute the following:

**Description**

- 416.01** This work consists of cold milling the existing asphalt concrete pavement to a depth as shown on the plans and constructing an asphalt concrete pavement course using methods and equipment capable of recycling and relaying the material in a one-pass operation in accordance with these specifications and in reasonably close conformity with the lines as shown on the plans or as directed by the Awarding Officer (AO).

**Material**

- 416.02** Conform to the following Subsections and Tables:

Recycling agent  
Blotter  
Water

Table 416-1 & Table 416-2  
703.13  
725.01(c)

**Table 416-1**  
**Specifications for Recycling Agent**

Test Property	Test Method	Requirements
Kinematic Viscosity, 60°C., mm <sup>2</sup> /s	AASHTO T 201	5,000 – 10,000
Flash Point, Cleveland Open Cup, °C., Min.	AASHTO T 48	230
RTFC Weight Change, %w	AASHTO T 240	2.0 Max.
Compatibility, PC/S	ASTM D 2006	0.5 Min.
Saturates, %w	ASTM D 2007	30 Max.
Asphaltenes, %w	ASTM D 2006	17 Max.
Chemical Composition	ASTM D 2006	0.2 – 1.6
RTFC ratio <sup>1</sup>	AASHTO T 240	3.0 Max.
Specific Gravity	ASTM D 70	0.98 – 1.02

1. The viscosity RTFC residue at 60°C. in mm<sup>2</sup>/s/viscosity of original material at 60°C. in mm<sup>2</sup>/s.

**Table 416-2**  
**Specification for Emulsified Recycling Agent**

Test Property	Test Method	Requirements
Saybolt Furol Viscosity, 25°C., Seconds	AASHTO T 59	15 – 100
Sieve Test, %	AASHTO T 59	0.1 Max.
Cement Mixing, %	AASHTO T 59	2.0 Max.
Particle Charge	AASHTO T 59	Positive
Asphalt Residue, %	AASHTO T 59	60 Min.

**Construction Requirements**

- 416.03 Preliminary Laboratory Testing.** The Contractor shall obtain representative cold milled samples for each 2 lane kilometer of roadway with the adjacent lane samples alternating at 1.0 km. (0.6 mile) intervals at locations designated by the Awarding Official's Technical Representative (AOTR). Samples shall be obtained (using a small milling machine) from a rectangular area perpendicular to the centerline that is a minimum of 0.3m (1ft.) wide and extends across the roadway lane. The milled depth shall be uniform and as shown on the typical cross section of the plans. All milled materials shall be removed (except the area 0.3m (1ft.) from the lane edge). The Contractor shall immediately backfill the sample locations with minor hot asphalt concrete mix meeting the requirements under Section 404, FP-2003 as approved by the AO. Prepare the surface and compact the minor hot asphalt concrete mix as specified under Section 404. Obtain a sample of the recycling agent and test. Test the cold milled samples and recycling agent to the following:

**Table 416-3**  
**Laboratory Testing**

Test Property	Test Method
Asphalt content and gradation	AASHTO T 164, Method E & T 30
Recovery of In-situ asphalt cement, absolute viscosity and penetration	AASHTO T 170, T 202 & T 49
All test properties for Recycling Agent	See Table 416-1 and Table 416-2

Report the following: (1) The average in-situ asphalt content and aggregate gradation.  
 (2) The recovery of asphalt by the Abson Method, absolute viscosity and penetration.  
 (3) Test results for the recycling agent.  
 (4) Test results for the emulsified recycling agent.

**(a) Determination of Asphalt Demand of Aggregates.** The Contractor's laboratory shall determine the asphalt demand of the aggregates by the following formula:

$$P = \frac{(4R + 7S + 12F)}{100}$$

Where: P = Weight percent of asphalt demand in the mix.

R = Weight percent of rock in the aggregate, retained on the 2.36mm (No.8) sieve

S = Weight percent of "sand" (defined as the portion in the aggregate passing the 2.36 (No.8) sieve), but retained on the 75µm (No.200) sieve.

F = Weight percent of fines in the aggregate, passing the 75µm (No.200) sieve.

The minimum amount of recycling agent to be added equals the calculated asphalt demand minus the asphalt content of the pavement samples determined by vacuum extraction.

**416.04 Cold Recycle Asphalt Mix Procedures.** The Contractor's testing laboratory shall perform further testing. Determine the test properties listed below:

**Table 416-4**

Test Property	No. of Specimen	Test Method
Stability	2 each for stability and flow	Asphalt Institute MS-2, Mix Design Methods for Asphalt Concrete (Modified)
Flow		AASHTO T 245, Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus (Modified)
Compaction, 75 blows each end of test specimen		
Bulk Unit Weight	2 plus additional for graph with "Total Moisture"	AASHTO T 275, Bulk Specific Gravity of Compacted Hot-Mix Asphalt Mixtures Using Parafin-Coated Specimens
Percent air voids	2	ASTM D 3203, Percent of Air Voids in Compacted Dense and Open Graded Bituminous Paving Mixtures
Maximum specific gravity, 25 °C ( 77°F)	2	ASTM D 2041, Maximum Theoretical Specific Gravity of Bituminous
Asphalt content and gradation	-----	AASHTO T 164, Method E and AASHTO T 30
From Abson Method for Recovery of Asphalt determine Softening Point, Absolute Viscosity and Penetration	-----	AASHTO T 170, AASHTO T 53, AASHTO T 202 and AASHTO T 49

Mix at the specified percent of recycling agent (based on the total dry weight of the mixture) and water; make specimens in accordance with the modified Marshall Method (75 blow) compacted at 70°F. ± 5°F. Specimens shall be air cured for 7 days at 24° C ± 3°C (75°F ± 5°F) under a gentle air current of a fan and a relative humidity not to exceed 20% and then tested. The flow and stability specimens are not to be placed in a water bath prior to testing, but tested dry at 60° C (140°F). The bulk unit weight specimen shall be paraffin coated.

Specimens mixed at the specified percentage of recycling agent shall be fabricated as per the modified Marshall Method (75 blow) for bulk unit weight at one percent intervals of "Total Moisture" (water + recycling agent) from four (4) percent to seven (7) percent. The results shall be plotted to determine the bulk unit weight at these percent of "Total Moisture". Report the total asphalt content, absolute viscosity, softening point, bulk unit weights, plotted bulk unit weight versus total moisture, air voids, maximum theoretical specific gravity, and aggregate gradation.

**(a) Submittal of Mix Data.** Submit three (3) copies of the cold recycle asphalt mix test data to the AO for review and approval at least **21 calendar days before production**. Submit the asphalt demand of aggregates, average in-situ asphalt content, aggregate gradation, recovery of asphalt by the Abson Method, absolute viscosity, penetration, and test results for the recycling agent. The AO will determine the specified percentage of recycling agent to be used in the approved cold recycle asphalt mix.

**416.05 Production Start-Up Procedures.** Provide 7 days written notice to the AO before beginning the cold recycling production. On the first day of production, construct a control strip with a minimum area of 2926 square meters (3500 square yards), one-lane wide and at the plan thickness. Construct the control strip on the project at an approved location. Construct the control strip using the equipment that will produce the cold recycled mixture, production procedures, lay-down and compaction that shall meet the contract requirements. **Cease production** after construction until the entire test data are completed, evaluated and accepted. Perform the following tests during the construction of the control strip:

**(1) Asphalt content, aggregate gradation and moisture.** The Government will take a minimum of three (3) samples behind the lay-down machine after the recycling agent has been mixed with the milled asphalt concrete. Asphalt content and aggregate gradation will be tested in accordance with AASHTO T 164, Method E and T 30. Moisture content will be determined by drying a sample in a forced air oven at 230°F to a constant weight. The percent moisture will be subtracted from the percent asphalt content to determine the corrected asphalt content. Test data will be furnished to the Contractor.

**(2) Compaction.** Compact the control strip in accordance with **Subsection 416.12 Compaction (a) Initial compaction**. Nuclear density readings will be taken behind each roller pass to determine the roller pattern necessary to achieve the required minimum density of 90% of the maximum theoretical specific gravity.

Test data will be furnished to the Contractor

**(3) Modified Marshall, air voids, stability, flow, and Rice testing.** The specific gravity, stability, flow, air voids, maximum theoretical specific gravity (Rice) will be determined on the acceptance samples in accordance with **Table 416-4**, except the specimen shall be placed in a forced draft oven and cured at 140°F for 8-hours; then tested. For the Rice density, a Type C or D flask will be used instead of the "wide mouth container". A dispersing agent will be added to the water after the vacuum period and just before weighing in water. The "dry back method" will be used. All vacuum systems will be fitted with a vacuum gage or manometer suitable for measuring the specified vacuum. Test data will be furnished to the Contractor.

**(4) Final compaction.** If the control strip compaction did not meet the minimum 90% compaction requirement after the pneumatic rollers have completed their rolling, the Contractor may have to let the control strip cure for 24 hours or longer. Do not fog seal yet. Cure the control strip. After the curing period, the control strip shall receive the final compaction in accordance with **Subsection 416.13 Compaction, (c) Final compaction**. At a minimum of 10 locations, take nuclear density readings and determine the final densities. The final acceptance density is 90% of the maximum theoretical density. Test data will be furnished to the Contractor.



**(6) Fog seal and cure.** Fog seal and cure the control strip in accordance to Subsection 416.13 Compaction, (d) Fog Seal and Curing.

An accepted control strip will remain in place and will be accepted and measured as a part of the completed pavement. The NRDOT Manager will make a recommendation to the AOTR for acceptance/nonacceptance of a control strip based on test data. When a control strip is accepted, full production can begin.

**416.07 Additional Submittals.**

**(a) Specialty qualifications.** At least 21 calendar days before recycling, submit the name, qualifications, and references of a competent person with extensive cold recycling experience to be responsible for the cold recycling operations. This individual's responsibilities are identified in Subsection 416.08(b).

**(b) Sequence of operations.** At least 21 calendar days before recycling, submit the proposed equipment, manpower, and sequence of operations for approval to the AO.

**416.08 Surface Preparation.** Clean the existing surface of all loose material, dirt, grass, weeds, or other deleterious substances by a method approved by the AOTR. Clear, grub and remove all vegetation and debris within one (1) meter (3 feet) of the existing pavement edge to be recycled.

**416.09 Weather Limitations.** Place the cold recycled asphalt mixture **between May 1 and September 31** of the calendar year **only** and when the air temperature in the shade is at least 10°C (50°F) and the pavement surface temperature is at least 4°C (40°F) and rising. No rain shall be imminent. The pavement surface shall be clean and dry.

**416.10 Pavement Milling.** Use equipment that is:

- (a) Self-propelled;
- (b) Equipped with automatic depth control;
- (c) Capable of maintaining the required cutting depth;
- (d) Capable of milling to the required depth in a single pass of half the existing pavement width or one lane width, which ever is greater; and
- (e) Capable of screening and crushing material.
- (f) Capable of adding 4½ % moisture to the cold recycled asphalt mixture. Water shall be added at the rotor, hammer mill, screen deck and belts.

Do not disturb the underlying material. The milled material shall meet the following gradation:

**Table 416-5**

Sieve Size	Percent Passing of Mass
25mm (1-inch)	100
19mm (3/4-inch)	90-100

The milled paving material shall be placed into one windrow. The windrow shall be uniform in size and contain sufficient material to produce the required thickness for each lane width. **There shall be no concentration of fines in the lane milled prior to placement of the cold recycled mixture.**

**416.11 Mixing and Proportioning.** Produce a homogenous and uniform-coated mixture of milled paving material, recycling agent and water. No blade (motor grader) mixing of materials shall be allowed.

**(a) Equipment.** Use self-propelled equipment with:

- (1) A positive displacement pump with an automatic interlock system that allows the addition of recycling agent only when milled material is present in the mixing chamber and automatically shuts off when the machine is stopped. The pump must be capable of supplying from 0 to 10 percent recycling agent by mass of aggregate to within  $\pm 0.1$  percent of the desired application.

rate.

- (2) The pugmill (minimum length of 2.4m or 8 feet) shall be a twin shaft. The shaft paddles shall have a minimum diameter of 0.6 meters (2 feet). The bottom of the pugmill shall conform to the configuration of the shafts.
- (3) A weighing device calibrated and synchronized with the recycling agent metering pump to regulate the recycling agent added to the material in the pugmill.
- (4) A meter for monitoring flow rate and total delivery of recycling agent and water into the mix. The milled paving material shall be moistened immediately before adding the recycling agent but the moisture content shall not exceed 4.5%. If the ambient temperature exceeds 32°C (90°F), the moisture shall be increased as directed by the AOTR. The total liquid
- (5) content (i.e. moisture plus recycling agent) shall be maintained between 3.5% and 7% as directed by the AOTR.
- (6) Each mixing machine shall be equipped with working meters which are capable of registering the percent (%) and total delivery (gallons) of recycling agent and water introduced into the mixture and the quantity (pounds) of cold recycled aggregate material.
- (7) Capable of picking up all the windrowed milled paving material from the roadbed.

- (b) **Monitoring.** Continuously monitor and evaluate the milling/mixing/placing operations and make adjustments to proportioning or operational procedures as appropriate to maximize the quality and serviceability of the final recycled asphalt product. Adjustments may include the application rate of emulsified recycling agent, application of water, changes to the recycling operation to address distinct variations in existing pavement and material conditions, changes due to variation in shoulder material, and termination of operations due to abnormal or questionable product.

**416.12 Spreading and Finishing.** Use a paver conforming to Subsection 401.05 that is capable of picking up the entire windrow and feeding it into the paver hopper. Do not heat the screed. Place, spread and strike off the recycled mix to the required line, grade and elevation without segregation or tearing within the specified tolerances.

The longitudinal joint shall be at the centerline of the roadway. Longitudinal and transverse joints shall be tacked with recycling agent. Screeds shall include any strike-off device operated by tamping or vibrating action which is effective without tearing, shoving or gouging the recycled mix and which produces a finished surface of an even and uniform texture for the full width being paved.

**416.13 Compaction.** Compact using the following:

- (a) **Initial compaction.** Initial compaction shall begin with two (2) oscillating pneumatic type rollers each weighing at least 27 metric tons (25 Tons) operating in tandem and shall continue until no displacement occurs and until the pneumatic rollers "walk-out" off the mat. Do not park or idle rollers on uncompacted recycled mix.

Monitor and test the density of the in-place recycled mix according to AASHTO T 310 (nuclear gauge calibrated to a minimum of five (5) cores). The minimum acceptance density is 90% of the maximum theoretical density. Final compaction, to eliminate tire marks and to achieve additional density shall be done with a steel wheel vibratory roller weighing at least 14Mg (x Tons). Any type of rolling that results in excessive cracking, movement or any other pavement distress shall be discontinued. To prevent adhesion of the mixture to the rollers, the wheels shall be kept properly moistened with water mixed with a very small quantity of detergent or other approved material. Excess liquid shall not be permitted.

Rolling shall begin at the sides and proceed longitudinally parallel to the road centerline; each pass overlapping one-half of the roller width, gradually progressing to the crown of the road. When paving in echelon or abutting a previously placed lane, the longitudinally joint shall be rolled first followed by the regular rolling procedure. On super elevated curves, the rolling shall begin at the low side and progress to the high side by overlapping of longitudinal strips parallel to the centerline. Along forms, curbs, headers, wall, and any other places not accessible to the rollers, the mixture shall be thoroughly compacted with hand tampers, smoothing irons or with mechanical tampers.

The Contractor shall confine his operations on the roadway to the minimum practical area at all times. In no case shall any portion of the recycling work be uncompleted through the compaction stage by the end of the work day. The roadway shall be available for 2-way; 2-lane public traffic at the end of each work day unless traffic control is provided during non-work hours.

- (b) **Traffic limitation.** After completion of the initial compaction and densities has passed, no traffic (including the Contractor's equipment) shall be permitted on the completed roadway for at least one (1) hour.
- (c) **Final compaction.** When necessary, the cold recycled roadway may have to be cured for 24 hours or more. After the curing period, the Contractor shall finish the compaction production. The final acceptance density is 90% of the maximum theoretical density. The recycled asphalt concrete shall be compacted to a smooth surface and be reasonably close to the lines, grades and dimensions. The finish rolling shall be performed with a steel wheel.
- (d) **Fog Seal and Curing.** Before the roadway is opened to public traffic, the completed roadway surface shall receive a fog seal. A fog seal consists of applying recycling agent diluted with water onto the finished cold recycled surface. The recycling agent is diluted 2:1 with water (2 parts EARA with 1 part water). The diluted recycling agent shall be applied to the completed areas at a rate of 0.45 to 0.90 L/m<sup>2</sup> (0.10 to 0.20 gal/yd<sup>2</sup>) and cured. Place blotter at a rate of 2.7kg/m<sup>2</sup> (5.0 pounds/square yard) to absorb any excess asphalt. Then the roadway shall be opened to all traffic and allowed to cure for a minimum of 24 hours or as determined by the AO. The moisture content must not exceed 1½ % before placing the asphalt rubber seal coat. If the completed roadway surface becomes wet as a result of rain, the Contractor shall delay the seal coating and take moisture content tests to ensure that the moisture content does not exceed 1½%.

**416.14 Pavement Smoothness.** After final rolling, smoothness tests will be taken using a metal 3-meter (10 feet) straightedge taken at right angles and parallel to the centerline. Defective areas are surface deviations in excess of 5 mm (0.20-inch) in 3 meters between any two contacts of the straightedge with the surface.

- (c) **Defective area correction.** Correct defective areas. Corrective action shall consist of one or more of the following as approved by the AOTR which shall be at no cost to the Government:

1. Remove and replace the cold recycled asphalt concrete course.
2. Place an overlay course at least two (2) times as thick as the maximum size aggregate in the asphalt mixture.

Remeasure corrected areas using the straightedge method. Repeat the corrective work until the surface meets the contract requirements. All corrective work is at no cost to the Government.

**416.15 Maintenance and Repairs.** The Contractor shall continuously and immediately make repairs to the finished surface when directed by the AOTR. All damage repairs must be completed before placing the asphalt rubber seal coat. Maintenance and repairs shall be at the Contractor's expense.

**416.16 Traffic Control.** Do not begin work without an approved and accepted Temporary Traffic Control Plan (TCP).

**416.17 Acceptance.** See Table 416-6 for sampling and testing requirements.

Recycling agent will be evaluated and accepted under Subsection 106.04 and meets Table 416-1 and Table 416-2.

Construction of cold recycled asphalt concrete course will be evaluated and accepted under Subsections 106.02 and 106.04.

Minor hot asphalt concrete mix will be evaluated and accepted under Subsections 106.02 and 106.03.

Pavement smoothness will be evaluated and accepted under Subsection 106.04 and Subsection 416.13.

**416.18 Measurement.** Cold recycled asphalt concrete course will be measured by the square meter. The width is measured horizontally from the finished pavement shoulder hinge point to the opposite pavement shoulder hinge point. Measurement shall exclude any overlaps of longitudinal or transverse joints. The length is measured along the centerline of the roadway. Asphalt recycling agent, blotter material and water will not be measured for payment separately, but is included in the cold recycled asphalt concrete course item.

Recycling agent used for fog seal will be measured by the square meter. The width and length measurement is same as the cold recycled asphalt concrete course item. Water for the fog seal dilution, at the two to one ratio, shall be added at the factory or the refinery. The added water shall not be measured for payment and any freight cost assess by the supplier shall be considered a subsidiary obligation of the Contractor.

Minor hot asphalt concrete mix shall not be measured for payment but shall be considered a subsidiary obligation of the Contractor.

**416.19 Payment.** The accepted quantities will be paid at the contract unit price per unit of measurement for the Section 416 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

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**SECTION 419.-ASPHALT RUBBER SURFACE TREATMENT****Description**

- 419.01** This work consists of a single application of asphalt rubber binder, pre-coated cover aggregate and a fog seal coat.

**Material**

- 419.02** Conform to the following Subsections:

Aggregate	703.10
Asphalt binder	702.01
Blotter	703.13
Emulsified asphalt	702.03.
Antistrip	702.08

The asphalt binder shall be **PG 64-22**. Material Certificate of Compliance shall be provided with each tanker load.

Crumb rubber modifier (CRM) shall be produced primarily from the processing of automobile and truck tires by ambient temperature grinding methods.

The gradation of the CRM shall meet the following when tested in accordance with ASTM C-136 (dry sieve only) and using a 50 gram sample:

**Table 419-1**

<b>Sieve Size</b>	<b>Percent Passing</b>
2.36 mm (No.8)	100
2.00 mm (No.10)	95 - 100
1.18 mm (No.16)	40 - 100
600 $\mu$ m (No.30)	0 - 60
300 $\mu$ m (No.50)	0 - 20
75 $\mu$ m (No.200)	0 - 5

The use of rubber from multiple sources is acceptable, except the overall blend of rubber shall meet the above gradation requirements.

The individual CRM particles, irrespective of diameter, shall not be greater in length than 5mm (3/16-inch).

CRM shall have a specific gravity of  $1.15 \pm 0.05$  (ASTM D 297) and shall be substantially free of contaminants, including loose fabric, metal, mineral and other non-rubber substances.

No more than four (4) percent (by weight of rubber) calcium carbonate or talc may be added to prevent rubber particles from sticking together. The rubber shall be sufficiently dry, free flowing and non foaming when added to hot asphalt cement.

Fiber content in the rubber shall be less than 0.1% by weight. The moisture content in the rubber shall be less than 0.75% by weight. Mineral contaminant in the rubber shall not be greater than 0.25% by weight, as determined after water separating a 50 gram rubber sample in a one (1) liter glass beaker filled with water. The rubber shall contain no visible metal particles, as indicated by through stirring of a 50 gram sample with a magnet.

The Contractor shall provide material Certificates of Compliance for the rubber which certifies that all requirements of this specification are complied with for each production lot number or shipment.

### Construction Requirements

#### 419.03 Composition of Asphalt Rubber Binder.

The asphalt rubber binder shall consist of a properly proportioned mixture of paving grade asphalt cement, crumb rubber modifier (CRM) and other additives, if required. The percentage of CRM shall be between 18 to 22 percent by weight of the asphalt rubber mixture. The exact percentages for the asphalt cement, CRM and antistrip additive (if required) will be determined by the Government based upon the Contractor's mix design as submitted by the Contractor. The asphalt rubber binder shall meet the following physical parameters when reacted at 177°C (350°F) for 60 minutes:

**Table 419-2**  
**Asphalt-Rubber Properties**

<sup>1</sup> Rotational Viscosity, 177°C (350°F), pascal seconds	1.5 – 4.0
Penetration, 4°C (39°F), 200 g, 60 sec (ASTM D 5); 1/10 mm	10 Min.
Penetration, 25°C (77°F), 100 g, 5 sec (ASTM D 5); 1/10 mm	25 – 75
Resilience, 25°C (77°F) (ASTM D 3407); %	20 Min.
Softening Point, (ASTM D 36); °C (°F)	55 (131) Min.
Ductility, 4°C (39°F), (ASTM D 113); 1 CPM	5 Min.

(1) The viscometer used must be correlated to the Rion Viscometer (formerly Haake), Model VT-04, Rotor No.1.

#### 419.04 Asphalt-Rubber Binder Mix Design. Submit three (3) copies of the asphalt rubber binder mix design to the Government for review and approval at least **21 calendar days before production**. The mix design shall be prepared by the Contractor's independent testing laboratory. The mix design shall include the following:

(a) The design parameters listed in **Table 419-2** for the interaction periods of 60, 90, 135, 360 and 1440 minutes.

##### (b) Aggregate.

- (1) Target values for percent passing each sieve size. Designate target values within the gradation band in the specified grading.
- (2) Source of aggregate.
- (3) Results of aggregate quality tests.
- (4) Coating and stripping of bitumen-aggregate mixtures, AASHTO T 182

##### (c) Asphalt Binder.

- (1) Source of asphalt binder.
- (2) Grade of asphalt binder.
- (3) Percentage of asphalt binder (by total weight of the asphalt rubber mixture).
- (4) Material safety data sheets.

##### (d) Crumb Rubber Modifier.

- (1) Source of CRM.
- (2) Gradation of CRM.
- (3) Percentage of CRM (by total weight of the asphalt rubber mixture).

(4) If CRM from more than one source is to be used, the above information shall be required for each source.

The Government will evaluate the proposed mix design. If approved, the Government will issue **Job-Mix Formula No.1 (with an effective date)** which will include target values for the cover aggregate application rate, asphalt rubber binder application rate and percent passing each sieve size for the cover aggregate.

Changes to an approved job-mix formula or target value(s) require approval before production. Up to **5 working days** will be required to evaluate a change.

Approved changes in the target value(s) or job-mix formula will result in issuance of a new **Job-Mix Formula Number with an effective date**. The maximum number of changes in target value(s) or job-mix formula is **3**. Any requested changes above 3 shall require submittal of a complete new mix design as described under Subsection 419.03.

If the proposed mix design is disapproved, submit a new mix design.

**419.05**

**Qualification of Asphalt-Rubber Applicator.** The Contractor shall be required to pre-qualify with the BIA Division Manager the asphalt-rubber applicator process and/or subcontractor and supplier. The data required to be submitted for qualification approval shall include experience records and equipment list indicating the ability to comply with the specification. The asphalt-rubber applicator must have constructed a minimum of three asphalt-rubber surface treatments over existing pavements that have been in place at least three years under traffic.

**419.06**

**Equipment.** Furnish equipment as follows:

**(a) Asphalt distributor.**

- (1) Heating unit and an internal mixing device capable of maintaining a uniform mixture of the asphalt rubber binder.
- (2) Adjustable full circulating spray bar to 4.6m (15 ft) width. Bar extensions shall be full circulating. Test spray bar height at various heights. The spray bar shall maintain the set height 20mm (13/16 in.) during each spray run.
- (3) Apply uniform unbroken spread of asphalt rubber binder and positive acting control valves that quickly open and close in one operation. Uniformly apply asphalt rubber binder over the full width within 0.09 L/m<sup>2</sup> (0.02 gal/yd<sup>2</sup>) of the target spread rate. The distributor shall be equipped with hand hose and nozzle attachment to be used for inaccessible spotting areas.
- (4) Thermometer for measuring the asphalt rubber binder temperature in the tank.
- (5) Bitumeter that registers rate of travel in feet per minute, trip and total distance in feet.
- (6) Pump for circulating the asphalt rubber material in the spray bar, tank and for pumping the material through the spray bar or hand spray.
- (7) Pressure gage, pump, tachometer or other approved device for controlling the application rate of asphalt rubber material.
- (8) Gage or other approved means of accurately determining the quantity of asphalt rubber material in the tank.
- (9) Boot board on the rear of the vehicle for a boot man to accompany the distributor. The boot man shall ride in a position so that all spray bar tips are in full view and readily accessible for unplugging if a plugged tip should occur.
- (10) Maintenance of distributor and booster tanks such that no dripping of asphalt rubber material shall occur from any part of the equipment.

The AOTR will order the use of any distributor truck discontinued that does not comply with the above requirements or that fails to produce a satisfactory application of asphalt rubber material as specified herein.

**(b) Rotary power broom or mobile pickup broom.**

- (1) Self-propelled.
- (2) For pavement cleaning and excess cover material removal.

**(c) Pneumatic-tire rollers.**

- (1) Minimum 3 pneumatic-tire rollers.
- (2) Self-propelled.
- (3) Minimum of 3 pneumatic tires on front axle; minimum of 4 pneumatic tires on rear axle. Means of increasing or decreasing the air pressure in the tires while the rollers are in operation. Tires staggered to produce a slight overlap of the tire tracks. Adequate scraping device or cleaning device to prevent the accumulation of material on the tires.
- (4) Copy of roller manufacturer's chart or tables showing the contact areas and average ground contact pressure for the full range of wheel loadings for each roller.
- (5) Copy of calibration table or chart for the ballast box that indicates the volume of the ballast box in cubic yards, each 150 mm (6 in.) increase in the depth of ballast and the empty or tare weight of the roller.
- (6) Minimum ground contact pressure ---- 550kPa (80 psi).
- (7) Minimum compacting width ---- 1.5m (5 ft).

**(d) Aggregate spreader.**

- (1) Self-propelled.
- (2) Minimum of 4 pneumatic tires on 2 axles.
- (3) Positive controls to uniformly deposit the aggregate over the full width of asphalt within 10 % by mass of the required rates.
- (4) Good mechanical condition.
- (5) Adjustable aggregate spreader up to a minimum of 3.5m (11.5 ft) width.

**(e) Hauling units.**

- (1) Trucks with tailgate discharge and equipped with a device to lock onto the hitch at the rear of the aggregate spreader.
- (2) Trucks compatible with the aggregate spreader such that the dump bed shall not push down on the aggregate spreader when fully raised nor have a short bed that would result in aggregate spillage while dumping into the receiving hopper.

**(f) Asphalt-rubber equipment.** Equipment used in the production and application of the asphalt-rubber shall be described as follows:

**(1) Heat tank.**

An asphalt heating tank with a hot oil heat transfer system or retort heating system capable of heating asphalt cement to the necessary temperature for blending with CRM. This unit shall be capable of heating a minimum of 9,500 liters (2,500 gallons) of asphalt cement.

**(2) Blender.**

The asphalt-rubber mechanical blender shall have a two stage continuous mixing process capable of producing a homogenous mixture of asphalt cement and granulated rubber at the specified mix design ratios. This unit shall be equipped with a granulated rubber feed system capable of supplying the asphalt cement without interruption to the continuous blending



process. The maximum capacity of the primary blending vessel shall be 2,000 liters (500 gallons). The blending unit shall be capable of fully blending the individual rubber particles with the asphalt cement. A separate asphalt cement feed pump and finished product pump are required. This unit shall have an asphalt cement totalizing meter in liters and a flow rate meter in liters per minute.

(g) **Other equipment.** Provide two-way communication between the asphalt-rubber distributor and the aggregate spreader if the roadway alignment does not permit visual contact.

**419.07 Asphalt Rubber Mixing and Reaction.** The percentage of CRM shall be as approved in the mix design and the issuance of Job-Mix Formula No.1. The temperature of the asphalt cement shall be between 190°C (375°F) to 232°C (450°F) at the addition of the CRM. The asphalt and rubber shall be combined and mixed together in the asphalt rubber blending unit and reacted in the distributor for a minimum period of 30 minutes from the time the CRM is added to the asphalt cement. The temperature of the asphalt rubber mixture shall be above 177°C (350°F) during the reaction period, but shall not exceed 232°C (450°F) at any time. Exceeding the 232°C (450°F) temperature limit shall be grounds for rejection.

When a job delay occurs after full reaction, the asphalt rubber mixture may be allowed to cool. The mixture shall be reheated slowly (just before application) to a temperature between 177°C (350°F) and 204°C (400°F). Additional quantity of asphalt cement and/or CRM may be added (as required) to produce a mixture that meets the specification viscosity requirement.

**419.08 Surface Preparation.** Clean the existing pavement surface of all loose material, vegetation, dirt, or other foreign material by approved methods. The material removed from the pavement surface shall not be windrowed along the roadway shoulder or fore slope in such a manner to impede drainage nor be unsightly. The existing road surface shall be approved by the COR/AOTR before application of the asphalt rubber binder or any other work can begin.

**419.09 Weather Limitations.** Place hot asphalt rubber surface treatment **between June 1 and August 31** of the calendar year only and when the air temperature in the shade and the pavement surface temperature are at least 24°C (75°F) or higher. Place fog seal when the air temperature in the shade is at least 4°C (40°F). The wind condition shall not exceed 16 km/h (10 mph) nor shall rain be imminent. The pavement surface shall be clean and dry.

**419.10 Traffic Control.** Do not begin work without an approved and accepted Temporary Traffic Control Plan (TCP). Use a pilot car according to Section 635 to limit traffic speeds. During the initial 45 minutes after rolling, limit the traffic speeds to 16 km/h (10 mph). Limit traffic speeds to 32 km/h (20 mph) for 24 hours.

**419.11 Production Start-Up Procedures.** Provide **7 calendar days advance notice** before constructing a control strip. Also use these start-up procedures when resuming production after termination due to nonconforming work.

On the first day of production, construct a 305m (1,000 ft) control strip that is one-lane wide. Locate the control strip on the project as designated. Construct the control strip using the hot coated aggregate/asphalt material, aggregate spreader, asphalt rubber binder distributor and all pneumatic rollers that shall be used during production. Cease production after construction of the control strip.

(a) **Aggregate Gradation.** The Government's independent testing laboratory will take **3 acceptance samples**, test and evaluate the test results according to Subsection 106.04. The aggregate gradation upper and lower specification limits are the approved job-mix formula target values plus or minus the allowable deviations shown in Table 703-7.

(b) **Aggregate Application Rate.** The **3** aggregate acceptance samples taken for the gradation test will be evaluated for application rate compliance according to Subsection

106.04. The application rate upper and lower specification limits are the approved job-mix formula target value plus or minus  $0.54 \text{ kg/m}^2$  ( $1 \text{ lb/yd}^2$ ).

(c) **Asphalt Rubber Binder Application Rate.** The asphalt rubber binder application rate is based upon the distributor's automatic read-out unit inside the cab. The application rate upper and lower specification limits are the approved job-mix formula target value plus or minus  $0.09 \text{ L/m}^2$  ( $0.02 \text{ gal/yd}^2$ ).

(d) **Acceptance of Control Strip.** The control strip is accepted at a pay factor of 1.00 if the average of the 3 tests for the aggregate gradation and aggregate application rate are within the above specification limits and the asphalt rubber binder application rate is within its specification limit.

Repeat the control strip process until an acceptable control strip is produced. A maximum of **3 control strips** are permitted. If 3 control strips have been constructed and have not been accepted, cease operation. Submit a corrective plan for review and approval. Repeat the control strip process again after approval of corrective plan.

The Contractor shall follow the procedures under Subsection 106.01 for control strip(s) that have not been accepted.

#### 419.12

**Asphalt Rubber Binder Application.** Protect the surfaces of nearby objects to prevent spattering or marring. Spread building paper on the surface for a sufficient distance from the beginning and end of each application so the flow through the distributor nozzles may be started and stopped on the paper.

The asphalt rubber binder shall be applied between  $2.26 \text{ kg/m}^2$  ( $0.55 \text{ gal/yd}^2$ ) to  $3.16 \text{ kg/m}^2$  ( $0.70 \text{ gal/yd}^2$ ) at a temperature between  $163^\circ\text{C}$  ( $325^\circ\text{F}$ ) to  $204^\circ\text{C}$  ( $400^\circ\text{F}$ ). The Government will determine the exact application rate, temperature and area to be sealed before application. Apply the asphalt rubber uniformly with the distributor. Move distributor forward at the proper application speed at the time the spray bar is opened. Use care not to apply excess material at the junction of spreads. All longitudinal joints shall be overlapped but the overlaps shall not exceed 150mm (6 in).

Correct skipped areas or deficiencies. Remove and dispose of paper and unused asphalt rubber material at an approved landfill site. Furnish copies of receipts for the disposal to AOTR.

Traffic shall not be allowed on the asphalt rubber material until the cover aggregate has been applied and rolled in accordance with these specifications.

#### 419.13

**Aggregate Application.** The cover aggregate shall be hot pre-coated with  $0.50\% \pm 0.25\%$  paving asphalt cement by dry weight of aggregate. The pre-coated cover aggregate should have a "salt and pepper" appearance. At the time of application, the hot pre-coated cover aggregate shall be at a temperature between  $110^\circ\text{C}$  ( $250^\circ\text{F}$ ) to  $163^\circ\text{C}$  ( $325^\circ\text{F}$ ). The cover aggregate shall be applied between  $14 \text{ kg/m}^2$  ( $25 \text{ lbs/yd}^2$ ) to  $19 \text{ kg/m}^2$  ( $35 \text{ lbs/yd}^2$ ). The Government will set the exact application rate and approve area to be sealed before application. Immediately apply the hot pre-coated aggregate uniformly with an aggregate spreader after the asphalt rubber binder is applied. Maintain a constant speed of the aggregate spreader within a distance of 30m (100 ft) of the distributor. In no case shall the aggregate spreader lag more than 45m (150 ft) behind the distributor.

Immediately correct excesses and deficiencies by careful means to insure no permanent ridges, bumps or depressions in the completed surface and that a uniform texture is achieved. Use hand methods in areas not accessible to power equipment.

Make first roller pass immediately to seat the aggregate after the aggregate is applied. Operate rollers at a maximum speed of 8 km/h (5 mph). If directed by the AOTR, a steel tandem roller shall also be used at speeds not to exceed 4.8 km/h (3 mph). Furnish sufficient rollers to cover the entire width of the treated surface in one pass.

If the aggregate spreader is stopped for any reason, the spreader shall be moved ahead so all aggregate spread shall be rolled immediately. **Rolling shall be continuous until a minimum of 4 complete coverage have been made while the asphalt rubber binder is still tacky enough for the aggregate to adhere.** Final rolling shall be completed within one (1) hour after the application of the pre-coated aggregate.

Hauling units shall not exceed 16 km/h (10 mph) when traveling over the sections of roadway where rolling has not been completed.

**419.14 Brooming and Maintenance.** Lightly broom the aggregate surface in not less than 3 hours nor more than 48 hours after application; however, if the AOTR determines that conditions are not conducive to obtaining the best results by brooming during this period he will designate another time period. Maintain the final surface by distributing blotter or cover aggregate according to Section 411 to absorb any free asphalt rubber and by repairing areas deficient in aggregate. Sweep excess material from the final surface using a rotary power broom. Do not displace embedded material.

**419.15 Fog Seal.** When necessary, the Contractor shall furnish a separate **temporary traffic control before** the fog seal operations begin. **NO WORK** shall be allowed until the temporary traffic control is in place and approved by the AOTR. A fog seal consists of applying emulsified asphalt diluted with water onto the finished asphalt-rubber chip seal surface. The emulsified asphalt is diluted 1:1 with water. The diluted emulsified asphalt shall be applied to the completed asphalt-rubber sealed areas in accordance to Subsection 409.10, Fog Seal at a rate of 0.45 to 0.68 L/m<sup>2</sup> (0.10 to 0.15 gal/yd<sup>2</sup>) for both the first and second application. **The fog seal can be cured for a minimum of 5 days and a maximum period of 14 calendar days.** After this curing period, the permanent pavement markings must be applied to the completed asphalt rubber sealed areas. The AO/CO may change the grade of emulsified asphalt without any change in contract unit price.

**419.16 Acceptance.** Asphalt binder and emulsified asphalt will be evaluated and accepted under Subsections 106.04, 702.01, 702.03 and 702.09.

Pre-coated aggregate will be evaluated and accepted under Subsection 106.02 Visual Inspection.

Asphalt-rubber binder mixture will be evaluated and accepted under Subsection 106.04.

Construction of asphalt rubber surface treatment will be evaluated and accepted under Subsections 106.02, 106.04, and 106.05. The cover aggregate application rate allowable deviation is plus or minus **0.54 kg/m<sup>2</sup>** (1 lb/yd<sup>2</sup>) from the approved target value. The asphalt rubber binder application rate allowable deviation is plus or minus **0.09 L/m<sup>2</sup>** (0.02 gal/yd<sup>2</sup>) from the approved target value.

Aggregate gradation will be evaluated and accepted under Subsection 106.05. See **Table 419-3** for minimum sampling and testing requirements in the contract supplemental specifications.

**(a) Aggregate gradation.** The upper and lower specification limits are the approved job-mix formula target value plus or minus the allowable deviations shown in **Table 703-7**. See Table 419-3 for the acceptance quality characteristic categories.

#### Measurement

**419.17** Asphalt rubber surface treatment will be measured by the square meter which excludes any overlaps of longitudinal or transverse joints. Asphalt binder, blotter material, crumb rubber modifier (CRM) and hot coated cover aggregate will not be measured for payment separately, but is included in the asphalt rubber surface treatment item.

Emulsified asphalt (fog seal) will be measured by the square meter. Water for the fog seal dilution, at the one to one ratio, shall be added at the factory or the refinery. The added water shall not be

measured for payment and any freight cost assess by the supplier shall be considered a subsidiary obligation of the Contractor.

**Payment**

**419.18** The accepted quantities, measured as provided above, will be paid at the contract price per unit of measurement for the Section 419 pay items listed in the bid schedule, except the asphalt rubber surface treatment contract unit bid price will be adjusted according to Subsection 106.05. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Payment for asphalt rubber surface treatment will be made at a price determined by multiplying the contract unit bid price by the material pay factor. The material pay factor is the **lowest** single pay factor determined for **cover aggregate gradation only**.

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**SECTION 601 - MINOR CONCRETE STRUCTURES**

**601.03 Concrete Composition.**

Subparagraph (g) is superseded with the following:

(g) Target values for concrete air content. Include the proposed range of air content for concrete to be incorporated into the work. Describe the methods by which air content will be monitored and controlled. Provide acceptable documentation that the slump and compressive strength of the concrete are within specified limits throughout the full range of proposed air content.

Add:

(j) Unit weight of concrete.

The compressive strength in table 601-2 is superseded with the following:

Minimum 28-day compressive strength, Mpa.....20.7

**601.07 Acceptance.**

The first sentence pertaining to Table 601-2 is deleted.

The third and last paragraphs are superseded with the following:

Portland cement concrete shall be evaluated for acceptance based on the concrete mixture=s slump, air content, unit mass, and temperature per subsection 106.04.

Concrete compressive strength shall be evaluated under Subsection 106.05 for 25 cubic meters or more concrete placed and subsection 106.04 for less than 25 cubic meters of concrete placed. The lower specification limit is the minimum required compressive strength at 28 days specified in the contract.

Construction (including batching, placing, finishing, and curing concrete) will be evaluated under Subsections 106.02 and 106.04.

**601.08 Measurement.**

This subsection is superseded with the following:

Minor concrete will be measured by the cubic meter in the structure. Reinforcing steel will not be measured for payment but shall be considered incidental to the work described in this section.

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**SECTION 602. - CULVERTS AND DRAINS**


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**602.01 Description.**

This paragraph is superseded with the following:

This work consists of constructing culverts, drains, precast and cast-in-place concrete box culverts.

**602.02 Material.**

Add the following:

Concrete for cast-in-place box culverts .....	552
Corrugated Steel (metal) Pipe Culverts. ....	707.02
Reinforcing Steel.....	709

**602.03 General.**

Add the following:

Aluminum coated pipe shall meet the requirements of AASHTO M 274 Type II. All Aluminum structural plate pipe shall meet the requirements under subsection 707.06 Aluminum-Alloy Structural Plate Structures.

**602.08 Acceptance.**

The first and second paragraphs are superseded with the following:

Material for culverts, drains, and cast-in-place concrete box culverts furnished will be evaluated and accepted under Subsections 106.02 and 106.03.

Installation for culverts, drains, and cast-in-place concrete box culverts will be evaluated and accepted under Subsections 106.02 and 106.04.

**602.09 Measurement.**

This subsection is superseded with the following:

Pipe and box culverts will be measured by the meter along the invert. End sections, elbows, and branch connections by the each. If there is no pay item for elbows or branch connections, they will be measured as additional pipe length along the invert.

Wing walls for the cast-in-place concrete box culverts will not be measured for payment but will be considered a subsidiary obligation of the Contractor covered under the work for this section.

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**SECTION 607 - CLEANING, RECONDITIONING AND  
REPAIRING EXISTING DRAINAGE STRUCTURES**

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**607.06      Reconditioning Drainage Structures:**

Add the following:

The Contractor shall remove sections of existing multi-plate culvert, as called for in the design plans, in a neat manner such that any new extensions will fit with clean straight lines. Dispose of all removed sections to an approved dumpsite off the project limits.

**607.07      Acceptance:**

Add the following:

The Contractor shall not be paid for removed, cleaned and stockpiled culverts that were damaged, during removal, in a negligent manner. It is the Contractor's responsibility to show that due care was taken during the removal, cleaning, and stockpiling of existing culverts which shall include an inspection, with the AOTR, prior to removal of culverts so that both the AOTR and Contractor can agree in writing on what actual culverts can be removed without damage. Those culverts that cannot be removed without damage will be extracted in the most cost effective means possible, as determined by the Contractor, and a price reduction for item 60701 shall be submitted and negotiated through the AO.

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**SECTION 617. - GUARDRAIL**

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**617.05                    Terminal Sections.**

Add the following:

Use ET-2000 Plus HBA or equivalent ( SKT-350) breakaway terminals only for guardrail installations.

For bridge end treatments use the Non- redirective Energy Absorbing Terminal (NEAT) or equivalent meeting the requirements of NCHRP-350, test level 2 criteria if specified in the contract documents or construction plans. Contractor shall provide all manufacturer details, shop drawings, certifications, and recommendations on installation to the AOTR for review and approval prior to its use.

**617.10                    Measurement.**

This subsection is superseded with the following:

Guardrail for roadway shoulders (including asphaltic curbing where applicable) will be measured by the linear meter beginning at the centerline of the first terminal connector post to the last terminal connector post of the guard railing at the opposite end complete in-place and accepted including the breakaway terminal section assembly, ET-2000 Plus or equivalent, SGR04b, Type PDE02.

Add the following:

Approach guardrail for bridges (including asphaltic curbing where applicable) will be measured by the linear meter, from the centerline of the first post of the breakaway terminal section to the beginning of the bridge railing complete in-place and accepted, including the breakaway terminal section assembly, Rubrail and Rubrail connection hardware and all W-Beam connection hardware to the concrete barrier, unless otherwise noted on the contract plans or bid schedule.

Earth berms will be measured under Section 204.



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**SECTION 619 - FENCES, GATES, AND CATTLE GUARDS**

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**619.04      Grounding Fences.**

Add the following:

Grounding of fence line at all overhead power lines crossings shall be done only after the Contractor has notified the utility owner at least 10 days in advance of work.

Paragraph two is superseded with the following:

Where electric lines run parallel or nearly parallel and within 6 meters of the fence line, ground the fence at each end or gate post or at intervals not to exceed 250 meters.

**619.05      Remove and Reset Fence.**

Add the following:

The location and length of fencing to be removed and/or reset shall be as called for in the design plans. Otherwise the AOTR will determine the location and lengths during construction where applicable.

**619.07      Cattle Guards.**

**(d) Painting**

Add the following to this subparagraph:

The top coat of paint for all cattle guards shall be Highway Safety Yellow or equivalent, as approved by the AOTR and NRDOT Division Manager.

**619.09      Acceptance.**

Add the following:

Temporary fence construction for livestock control shall be considered incidental to completion of the project and no separate payment shall be made.

**619.10      Measurement.**

This subsection is superseded with the following:

When the bid schedule does not provide a bid item for temporary fence and/or the work described in this section, then the work shall be considered incidental to completion of the project and no measurement shall be made.

Installation of ground wires under 619.04 shall be included in the unit price bid for the fencing items shown in the bid schedule.

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SECTION 625 -TURF ESTABLISHMENT

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**625.02 Material.**

Add the following:

The seed shall be delivered to the project site in standard, sealed, undamaged containers. Each container shall be labeled in accordance with the U.S. Department of Agriculture rules and regulations under the Federal Seed Act. Labels shall indicate the variety or strain of seed, the percentage of germination, purity and weed content, and the date of analysis which shall not be more than nine (9) months prior to the delivery date.

Seed shall consist of the type shown in section 625.07 below. Application rates of seed as specified are for Pure Live Seed (PLS). PLS is determined by multiplying the sum of the germination and hard or dormant seed by the purity.

Weed content shall not exceed 0.5% to the fullest extent possible.

Straw mulch shall be WEED FREE to the fullest extent possible. Copies of mulch certifications shall be furnished to the AOTR 5 calendar days prior to application of mulch.

**625.03 General.**

Add the following:

Seeding and mulching shall be performed immediately following final slope grading to the fullest extent possible. If seeding cannot be performed at final grading, then refer to section 157.04 subparagraph (H.2) for further requirements. In no case shall permanent seeding and mulching be performed during the months of November 15 through March 15. Dormant seeding may take place during November 1<sup>st</sup> and December 15<sup>th</sup>.

**625.04 Preparing Seedbed.**

The second sentence of the first paragraph is superseded with the following:

Remove all weeds, sticks, high stone concentration areas with stones of 75mm in size or larger, and other debris detrimental to application, growth, or maintenance of the turf.

Add the following:

Seedbed preparation shall be accomplished with a disc harrow, chiseling tool or with other equipment which will provide an even mixture of fertilizer into the soil.

Tillage will not be required on slopes of 2:1 or steeper. However, such slopes shall be fertilized, seeded and mulched as required. Tillage operation shall be performed so as to produce a soil surface that is rough, firm and free of clods.

Tillage shall be performed across the slope when practical. No work shall be done when the moisture content of the soil is unfavorable.

In areas which, in the opinion of the AOTR, are too rocky to till without drastically disturbing the completed roadway sections, the AOTR will approve a reduction of tillage accordingly.

**625.05 Watering.**

This section is superseded with the following:

Moisten seeding areas before seeding and maintain the moisture until 10 days after germination when recommended by the supplier or as directed by the AOTR. The water used shall be included in the unit price bid for the earthwork bid items shown in the bid schedule when there is no bid item for development of water supply.

625.06 **Fertilizing.**

Add the following:

All areas to be seeded shall have ammonium phosphate, at a rate of 56 kg per Ha, uniformly applied to the surfaces to be seeded and tilled into a minimum of 76mm of the surface.

625.07 **Seeding.**

Add the following:

Seeding shall be accomplished by the Dry Method.

After the tillage is completed and accepted by the AOTR, seed shall be planted by drill, except that on slopes too steep or rocky, seed may be broadcast provided that it is covered by dragging, hand raking or other approved methods. The type of seed and pure live seed rate is as follows:

<u>Species</u>	<u>Cultivar</u>	<u>Kg PLS per Hectares</u>
Alkali Sacation		2.25
Galleta	Viva	2.25
Indian Rice grass	Paloma	2.25
Western Wheatgrass	Arriba	3.37
Created Wheatgrass	Ephraim	3.37
Scarlot Blobemallow		0.56
Total		14.05

Seed shall be planted approximately 6mm deep, with a maximum depth of 13mm. The distance between the drilled furrows shall not be more than 203mm. If the furrow openers on the drill exceed 203 mm, the area shall be drilled twice. Seeding shall be done with grass seeding equipment with double disc openers, depth bands, packer wheels or drag chains, rate control attachments, seed boxes with agitators and separate boxes for small seed.

Seed of different sizes shall be sowed from at least two separate boxes adjusted or set to provide the seeding rate specified above.

625.08 **Mulching:**

The first sentence is superseded with the following:

Apply straw mulch at a rate of 4500kg/Ha after seeding by the following methods:

625.11 **Method of Measurement.**

This subsection is superseded with the following:

Seeding will be measured by the hectare on the ground surface or by the slurry. Fertilizer and mulching will not be measured for payment but shall be considered a subsidiary obligation of the Contractor covered under the work for this section.

Water will be measured by the cubic meter in the hauling vehicle or by metering.

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**SECTION 633. - PERMANENT TRAFFIC CONTROL**

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**633.01 Description.**

The second paragraph is superseded with the following:

All permanent traffic control signs shall be fabricated out of aluminum only.

**633.03 General.**

Add the following:

Any existing signs which require removal (prior to the installation of the permanent signs) due to construction activity shall be temporarily reset as directed by the AOTR. The Contractor shall notify the AOTR three (3) working days prior to sign removal. This work shall be incidental to the construction bid item to which the sign removal was required.

**633.06 Delineators and Object Markers.**

Add the following:

Delineator posts shall be either flexible type fabricated out of stone impregnated fiber glass or plastic type, and able to withstand repeated vehicular impact and provide resistance to ultraviolet light. The posts shall be as shown on the design plans. Type II object markers shall be fabricated in accordance with the manufacturers specifications.

Type III object markers shall be mounted on 2.98kg/m steel posts with the marker fabricated out of aluminum.

**633.08 Acceptance.**

This subsection is superseded with the following:

Installation of traffic control devices will be evaluated and accepted under Subsections 106.02 and 106.04. Excavation and backfill will be evaluated and accepted under Section 209. Concrete will be evaluated and accepted under Section 601.

**633.09 Measurement.**

Add the following:

The Type II and Type III object markers and posts shall be measured as a sign system, respectively.

The mile posts markers shall be measured as a sign system.

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**Section 634.- PERMANENT PAVEMENT MARKINGS**

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**634.01 Description.**

Add the following:

The Contractor shall provide temporary traffic control in accordance with Section 635.- Temporary Traffic Control and the approved traffic control plan.

**634.03 General.**

Add the following:

Permanent pavement markings **shall begin no earlier than 5 days and no later than (2) weeks after completion** of the asphalt pavement, fog seal, and/or chipseal work unless otherwise agreed to by the AOTR in writing. If the Contractor fails to comply with the above, the AO will withhold all pending and future progress payments under this contract until the Contractor complies with this requirement.

The third paragraph is superseded with the following:

At least **7 days** before applying pavement markings, furnish a written copy of the markings manufacturer's recommendations for use. A field demonstration shall be conducted **before** the Contractor is authorized to place permanent pavement markings to verify the adequacy of the manufacturer's recommendations, equipment compliance, application rates of the traffic markings and beads. The field demonstration shall be 30 meter for the white traffic markings with glass beads and 60 meter for the yellow markings with glass beads meeting the contract requirements under this section. Cease demonstration after placement of pavement markings until the demonstration is evaluated and accepted.

The field demonstration is accepted if the manufacturer's recommendations are verified and the application rates of the traffic markings and glass beads are within the contract specification limits.

Repeat the field demonstration until an acceptable demonstration is produced. See Subsection 106.01 for the disposition of material in unacceptable demonstration(s). Accepted field demonstrations shall remain in place and will be accepted and measured as a part of the completed work. When a field demonstration is accepted, full production may begin.

If the Contractor changes manufacturer or if the marking operation is producing unsatisfactory results, the field demonstration procedures shall be repeated as necessary until the desired results are achieved.

The Contractor shall ensure that all paint and other markings sampling and handling procedures are performed in accordance with the following where applicable:

1. Drums of markings shall have tamper proof seals as required under Subparagraph **634.03(b) Drum Seals**;

2. The markings and bead tanks on the striping machine shall be empty, unless the Contractor provides a Letter of Transfer for Markings from a previous BIA /State project as required under Subparagraph 634.03(f) **Letter of Transfer for Markings**;
3. Settled pigment shall be re-disbursed before loading markings as required under Subparagraph 634.03(a) **Re-disbursement of Settled Markings**;
4. The Contractor shall strap the tanks as described in Subparagraph 634.03(e) **Volume Control Requirements**.

Add the following subparagraphs:

**(a) Re-disbursement of Settled Markings.** When markings have settled excessively, the Contractor shall re-disburse the settled pigments at the bottom of the markings drums with a mixing device before pumping or loading into the striping unit so that excess pigments are not left on the bottom of the markings drums. Thinner shall not be pumped into the markings tanks.

**(b) Drum Seals.** Drums of markings used on Government projects shall be sealed at the point of manufacture and consecutively numbered with tamper proof seals. These seals shall only be removed with the AOTR present at the time of actual use. Drums with broken seals shall not be accepted.

**(c) Equipment.** The traffic markings and beads shall be placed on the pavement by a spray type, self propelled pavement marking machine, except that temporary striping during construction may be placed with other equipment designed for application of markings, or beads.

The machine shall be capable of applying clear-cut 102mm lines. The machine shall be equipped with an air-operated glass bead drop-in dispenser controlled by the spray gun mechanism. The machine shall be equipped with a mechanical device capable of placing a broken reflectorized centerline stripe having a 3.0-meter length and 9 meter gap between stripes.

The dispenser shall be capable of placing the glass spheres immediately into the markings line as it is applied to the pavement in such a manner as to provide satisfactory marking and delineation.

**(d) Measurement Devices.** A method of measuring the actual volume of markings and beads in the tanks shall be provided on the tanks either by strap measurement or other externally approved gaging methods.

**The Contractor shall provide current certification of calibration of all marking equipment at least 7 calendar days before the field demonstration for review and approval.**

**(e) Volume Control Requirements.** The volume of markings and glass beads in place shall be measured by the quantity per kilometer method or by the use of markings and beads gauges.

The Contractor shall strap the tanks before beginning striping operations and again after 1 kilometer has been striped or if the striping machine is equipped with air atomized spray units (not airless) and markings and bead gauges, the volume may be determined by said gauges.

The volume shall be measured again at the beginning and end of each day. This information shall be given to the AOTR.

**(f) Letter of Transfer for Markings.** The markings and bead tanks of the striper must be empty before filling for the beginning of the striping operations for the project, unless a Letter of Transfer for Markings has been obtained.

Paint markings or glass beads left over in the striping truck tank can be transferred from one BIA project by providing a Letter of Transfer for Markings@ which shall include the following information:

1. The quantity left in the tanks;
2. The BIA project it is coming from, including the termini and project name;
3. The project it is going to;
4. The date;
5. The batch number the markings came from;
6. The seal numbers of the markings in the tank;
7. The previous AOTR's signature.

**(g) Tolerance Requirements for Placing Markings & Beads.** The finished lines shall be smooth, aesthetically acceptable and free from undue waviness. The finished marking material shall be rectangular in shape with well-defined edges.

**(h) Repair & Replacement of Unacceptable or Damaged Striping.** If the markings are not adhering to the existing pavement, the Contractor shall REMOVE the striping (under an approved method) and shall RESTRIPE the existing pavement. All damage to the pavement markings because of the Contractor's negligence or failure to maintain traffic control shall be repaired at no additional cost to the Government.

#### 634.08 Thermoplastic Markings (Type H and I).

Add the following:

When thermoplastic paint is applied to concrete surfaces, the concrete surface shall be primed and sealed in accordance with the paint manufactures recommendations prior to application of the paint. A copy of the primer and sealer material specifications shall be provided to the AOTR for review and approval prior to application.



**634.12 Acceptance.**

This subsection is superseded with the following:

Material for permanent pavement markings will be evaluated and accepted under Subsections 106.02 and 106.03.

Placement of pavement markings will be evaluated and accepted under Subsections 106.02 and 106.04.

**634.13 Measurement.**

This subsection is superseded with the following:

Measure the Section 634 items listed in the bid schedule according to Subsection 109.02 and the following.

Pavement markings will be measured by the meter. The number of meters of lines applied will be measured along the centerline of each 102mm wide line applied regardless of color. Broken or dotted pavement lines will be measured from end to end of the line including gaps. Solid pavement lines will be measured from end to end of each continuous line. For line widths other than 102mm, the measured length of line is adjusted in the ratio of the required width to 102mm.

rev 08/27/09

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SECTION 635 - TEMPORARY TRAFFIC CONTROL

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## 635.03 General.

Add the following:

The construction plans will show Temporary Traffic Control Details of general requirements. After award of contract, the Contractor shall be required to develop his Traffic Control Plan (TCP) in accordance with the details shown in the design plans and the *Manual on Uniform Traffic Control Devices for Streets and Highways*, latest edition, and amendments.

The Contractor shall submit (at least 21 calendar days prior to the **Notice to Proceed**) his TCP in full details using the Government's traffic control details as a guide to the AOTR and NRDOT Division Manager for review. Neat hand drawn sketches will be accepted for emergency addendums to the original TCP ONLY with written justification. The Contractor assumes full responsibility and expense for errors and/or omissions in the TCP regardless of whether the plan was reviewed by the Government before the errors and/or omissions were discovered or after. The Contractor is also responsible for insuring a TCP that meets the contract requirements is in hand before construction begins. Failure to insure the TCP meets the contract requirements may result in a Stop Work order to be filed with the Contractor.

The NRDOT Division Manager will review and return the TCP within 14 calendar days, after receipt of the new TCP from the Contractor, stating either "Accepted", "Accepted as Noted", or "Resubmit".

Once the NRDOT Division Manager has notified the Contractor that the TCP has been accepted for use on the project, it will be the responsibility of the Contractor to implement and maintain the TCP prior to construction so as to accommodate traffic safely. The TCP shall be in force at all times during construction and at all locations where construction equipment is being used within the roadway prism. This shall include the area 457 meters (1500 feet) preceding the beginning of project and 457 meters (1500 feet) beyond the end of project.

Should the Contractor elect to perform other minor shoulder or corrective work outside the zone of the accepted TCP, or at various other work zones, it will be the Contractor's responsibility to provide additional traffic control (warning signs, barrels, barricades, flaggers, etc.) to direct traffic in a safe manner in accordance with the MUTCD manual as directed by the AOTR. Any additional traffic control required shall be considered incidental to completion of project and no additional payment shall be made.

The latest edition of the MUTCD manual is incorporated by reference into the Contractor's TCP. In cases of inconsistencies between the Contractor's TCP and what the MUTCD manual requires, the provisions of the MUTCD shall govern.

The Bureau of Indian Affairs (BIA) Safety Manager and/or the AOTR will make periodic inspections of the project and report to the AO regarding the Contractor's compliance with his TCP.

Failure by the Contractor to comply with his TCP, or perform work which could be dangerous to the safety of the traveling public (without proper traffic control devices) shall

be just cause for the AO to issue a "Stop Order per section 108.05 or "Cure Notice" for immediate corrective action to be taken.

When the Contractor has taken satisfactory corrective action, a written order to resume work shall be issued as required. The Contractor shall not be entitled to any extension of contract time; any claims for damages or to any excess cost by reason of the stop order and/or suspension orders. Failure of the Contracting officer to order suspension of any or all work in progress shall not relieve the Contractor of his responsibilities or obligations defined herein.

Flagging, signing, and any other traffic control required on haul routes from material pits and all detour roads shall not be measured for payment, but shall be considered a subsidiary obligation of the Contractor where the cost shall be included in the appropriate bid items.

Add the following subparagraphs:

(j) Any existing side routes (i.e. roads outside the project r/w) used as detours for road and drainage structure construction shall be properly signed and maintained (in a safe manner) at least twice per week in accordance with sections 212, 107 and 156. These existing side routes proposed for use as detour roads shall not be modified without the Contractor first obtaining proper permits to do so. The use and maintenance of these side routes shall be included in the unit price bid for item 63501-0000.

(k) Any proposed detour roads (within the project r/w) as shown on the contractor's TCP shall be constructed, maintained, and signed in accordance with sections 212, 107.01, and 156. It shall be the responsibility of the contractor to adequately design and install any and all drainage structures for such detour roads that cross existing washes including obtaining all necessary permits. All proposed temporary drainage structures shall be shown on the contractor's TCP and ECP. The construction, maintenance, and subsequent removal of proposed detour roads shall be included in the unit price bid for item 63501-0000.

**635.09**

**Flaggers.**

Add the following:

Copies of the Flaggers certifications must be current (in accordance with the certification program criteria) and provided to the AOTR for review and acceptance at the time the NTP is given. Flaggers that have current certification from other federally approved flagger certification programs (i.e. states, counties, and tribal safety programs) may be allowed provided the Contractor submits documentation that the program is recognized and approved by either the FHWA, TRB, or ATSSA. No flaggers with just "training" certifications will be allowed to work on the project unless approved by the AOTR in writing.

**635.25**

**Acceptance.**

Add the following:

Any damaged traffic control devices used on the project that is considered ineffective for its intended use (by the AOTR) shall be replaced at the Contractor's expense. Should the Contractor neglect or refuse to replace any traffic control device that the AOTR considers damaged to the extent that it no longer serves as an effective traffic control device (through a

noncompliance work order), then the AO shall issue a stop order in accordance with section 108.05 until the Contractor has complied with the AOTR directive.

**635.26 Measurement.**

The sixth paragraph is superseded with the following:

Flaggers will be measured by the Man-Hours for each hour the flagger(s) are actually performing flagging work within the project limits. Round portions of an hour up to the half hour for pay estimates. Flagger hours in excess of 40 hours in a week will not be measured for payment unless approved by the AOTR. Hours of flaggers attending meetings not related to traffic safety, haul roads, or attending to placement or removal of traffic control devices shall not be measured for payment.

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SECTION 702.- ASPHALT MATERIAL

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**702.09 Evaluation Procedures for Asphalt.**

This subsection is superseded with the following:

**(a) Shipping container.** Contaminated asphalt contained in contaminated shipping containers shall be rejected. It shall be the Contractor's and asphalt supplier's responsibility to ensure shipping containers are not contaminated.

**(b) Delivery ticket.** Furnish with each shipment a copy of the delivery ticket to the AOTR containing the following:

- (1) Consignees;
- (2) Project number;
- (3) Grade of asphalt;
- (4) Net volume;
- (5) Net mass;
- (6) Type and quantity of antistrip additive;
- (7) Identification number (truck, car, tank, etc.);
- (8) Destination;
- (9) Date;
- (10) Loading temperature; and
- (11) Specific gravity at 15°C (60°F)

**(c) Acceptance.** Acceptance of the asphalt binder is when all the specified properties for the asphalt binder in AASHTO M 320 are met. When tested by the Government, if the specified properties are not fully met a price reduction shall be negotiated with the Contractor.

rev: 8/27/09

## Section 703.- AGGREGATE

## 703.05

**Subbase, Base, and Surface Course Aggregate.**

This subsection is superseded with the following:

(a) **General.** Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel conforming to the following:

- |  |             |
|--|-------------|
| (1) Los Angeles abrasion, AASHTO T 96                      | 50% max.    |
| (2) Sodium sulfate soundness loss (5 cycles), AASHTO T 104 | 12% max.    |
| (3) Durability index (coarse), AASHTO T 210                | 35 min.     |
| (4) Durability index (fine), AASHTO T 210                  | 35 min.     |
| (5) Fractured faces, ASTM D 5821                           | 50% min.    |
| (6) Gradation  | Table 703-2 |
| (7) Liquid limit, AASHTO T 89                              | 25 max.     |
| (8) Free from organic matter and lumps or balls of clay    |             |

**Table 703-2**  
**Aggregate Base Gradation**

Sieve Size	Percent by Mass Passing Designated Sieve, AASHTO T 27 & T 11
25mm (1-inch)	100
19mm (3/4-inch)	85-95
9.5mm (3/8-inch)	50-80
4.75mm (No.4)	30-60
425µm (No.40)	8-30
75µm (No.200)	2-12

At least 30 days before placement, the Contractor shall furnish the above test data to the AO for review and approval.

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, blending processes as necessary. Fine aggregate, material passing the 4.75-millimeter sieve, shall consist of natural or crushed sand and fine material particles.

## 703.10

**Asphalt Surface Treatment Aggregate.**

This subsection is superseded with the following:

Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel. Use only one type of aggregate on a project. Size, grade, and combine the aggregate fractions in mix proportions conforming to the following:

- |  |             |
|--|-------------|
| (a) Gradation  | Table 703-7 |
| (b) Los Angeles abrasion, AASHTO T 96                      | 40% max.    |
| (c) Sodium sulfate soundness loss (5 cycles), AASHTO T 104 | 12% max.    |

- (d) Durability index (coarse), AASHTO T 210 35 min.  
 (e) Durability index (fine), AASHTO T 210 35 min.  
 (f) Fractured faces, ASTM D 5821 90% min.  
 (g) Clay lumps and friable particles, AASHTO T 112 1.0% max.  
 (h) Flat and elongated particles, 1:3 ratio & 9.5 sieve  
       calculated by mass, weighted average, ASTM D 4791 10% max.  
 (i) Density, AASHTO T 19M 1100 kg/m<sup>3</sup> (70 lbs./ft<sup>3</sup>) min.  
 (j) Coating and stripping of bitumen-aggregate  
       mixtures, AASHTO T 182 95% min.

**Table 703-7**  
**Target Value Ranges for**  
**Single and Multiple Course Surface Treatment Aggregate Gradation**

Sieve Size	Percent by Mass Designated Sieve (AASHTO T 27 & T 11)
	Grading Designation – Special
12.5mm	100 (1)
9.5mm	70-85 (3)
4.75mm	0-15 (5)
2.36mm	0-5 (3)
75µm	0-1 (1)

(1) Statistical procedures do not apply.

( ) The value in the parentheses is the allowable deviation (±) from the target values.

At least 30 days before placement, the Contractor shall furnish the above test data to the AO for review and approval.

Do not use lightweight aggregate according to AASHTO M 195.

### 703.13

#### Blotter.

Sentence (b) is superseded with the following:

(b) Plastic limit, AASHTO T90      Non-plastic

At least 30 days before placement, the Contractor shall furnish the above test data to the AO for review and approval.

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## Section 704.- SOIL

**704.02 Bedding Material.**

This subsection is superseded with the following subparagraph:

Furnish material free of excess moisture, muck, frozen lumps, roots, sod, or other deleterious material conforming to the following:

- |                                       |  |
|---------------------------------------|--|
| (a) Maximum particle size             | 12.5mm or half the corrugation depth, whichever is smaller |
| (b) Soil classification, AASHTO M 145 | A-1-a  |
| (c) Resistivity, AASHTO T 288         | $\geq 2000$ ohm-cm, Min.                                   |
| (d) pH, AASHTO T 289                  | $\geq 6.0$   |

At least 30 days before use and placement, the Contractor shall furnish the above test data to the AO for review and approval.

**704.03 Backfill Material.****(a) For all structures and pipes other than plastic pipes.**

This subparagraph is superseded with the following:

- |                                       |                          |
|---------------------------------------|--------------------------|
| (1) Maximum particle size             | 75mm                     |
| (2) Soil classification, AASHTO M 145 | A-1, A-2, or A-3         |
| (3) Resistivity, AASHTO T 288         | $\geq 2000$ ohm-cm, Min. |
| (4) pH, AASHTO T289                   | $\geq 6.0$               |

At least 30 days before use and placement, the Contractor shall furnish the above test data to the AO for review and approval.

**704.06 Unclassified Borrow.**

This subsection is superseded with the following:

Furnish granular material free of excess moisture, muck, frozen lumps, roots, sod, or other deleterious material. Material composing of lava or volcanic cinder is disallowed as borrow material. Material shall conform to the following:

- |                                       |                    |
|---------------------------------------|--------------------|
| (a) Maximum dimension                 | 600 mm             |
| (b) Soil classification, AASHTO M 145 | A-1, A-3, or A-2-4 |

If unclassified borrow is used as bedding and/or backfill material under Section 209, the material shall also conform to 704.02 and 704.03.

At least 30 days before use and placement, the Contractor shall furnish the above test data to the AO for review and approval.



**Section 713 - ROADSIDE IMPROVEMENT MATERIAL**

**713.13      Erosion Control Bales, Wattles, Logs, and Rolls.**

**(a) Straw Bales.**

The straw bales must be furnished weed free to the fullest extent possible given the available sources.

**713.16      Silt Fence.**

This section is superseded with the following:

Furnish a combination of the following material constructed as specified and in close conformance with the design plans. If approved, variations may be furnished to accommodate premanufactured fences and field conditions and accepted practices.

Conform to the following:

- |                 |  |
|-----------------|--|
| (a) Posts.      | Furnish 75-millimeter diameter wood or 1.86-kilogram per meter steel fence posts.  |
| (b) Supports.   | Furnish 2.03-millimeter steel wire with a mesh spacing of 150 by 150 millimeters or a prefabricated polymeric mesh of equivalent strength. |
| (c) Geotextile. | Conform to Subsection 714.01 and Table 714-5 as applicable.  |
| (d) Height.     | Minimum height above the ground is 760 millimeters. Minimum embedment depth is 150 millimeters.  |

## SECTION 718. - TRAFFIC SIGNING AND MARKING MATERIAL

### 718.01 Retroreflective Sheeting.

Add the following:

Retroreflective sheeting materials proposed shall be Type II or better per Table 718-3 below, with certifications, for all signs shall be submitted for review and approval prior to ordering the materials.

### 718.08 Signposts.

The first paragraph of subsection 718.08(b)(1)(c) is superseded with the following:

- (c) Galvanizing after punching                      AASHTO M 111M or  
 (d) Epoxy coated paint (forest Green)        ASTM A775 (Annex A1)

### 718.11 Letters, Numerals, Arrows, Symbols, and Borders.

Add the following:

The letters, numerals, arrows, symbols, borders, etc. shall be applied in accordance with subsection 718.11 (b) Type L-3 (Direct Applied Characters) having a Class 2 adhesive, and as shown on the design plans.

Table 718-3

Sign Color	Sheeting Type (ASTM D 4956) <sup>1</sup>				Additional Criteria
	Beaded Sheeting			Prismatic Sheeting	
	I	II	III		
				III, IV, VI, VII, VIII, IX, X	
White on Green	W*; G≥7	W*; G≥15	W*; G≥25	W≥250; G≥25	Overhead
	W*; G≥7	W≥120; G≥15			Ground Mounted
Black on Yellow or	Y*; O*	Y>50; O≥50			2
Black on Orange	Y*; O*	Y>75; O≥75			3
White on Red	W≥35; R≥7				4
Black on White	W≥50				

- 1) The minimum maintained retroreflectivity levels shown in this table are in units of cd/lx/m<sup>2</sup> measured at an observation angle of 0.2° and an entrance angle of -4.0°
- 2) For test and fine symbol signs measuring at least 1200 mm (48 in) and for all sizes of bold symbol signs
- 3) For test and fine symbol signs measuring less than 1200 mm (48 in)
- 4) Minimum Sign Contrast Ratio ≥ 3:1 (white retroreflectivity ÷ red retroreflectivity)

## **SECTION “E”**

### **INSPECTION AND ACCEPTANCE**

## STATEMENT OF WORK

### Inspection and Acceptance

#### INSPECTION

In General: In carrying out the responsibilities of Section 900.131, and specifically carrying out the review, comment, and approval functions under this section, the Secretary shall provide full tribal participation in the decision making process and shall honor tribal preference and recommendation to the greatest extent feasible. This includes promptly notifying the Indian tribe or tribal organization if any concerns or issues in writing that may lead to disapproval, meeting with the Indian tribe or tribal organization to discuss these concerns and issues and to share relevant information documents, and making a good effort to resolve all issues and concerns of the Indian tribe or tribal organization. The time allowed for Secretarial review, comment, and approval shall be no more than 21 days per review unless a different time period is negotiated and specified in individual contracts. The 21-day time period may be extended if the Indian tribe or tribal organization agrees to the extension in writing. Disagreements over the Secretary's decisions in carry out these responsibilities shall be handled under the Provisions of the Contract Disputes Act.

Contract Monitoring: Contract monitoring shall be performed by the Awarding Official or/and the AOTR to ensure the continuing trust, programmatic, and fiscal responsibilities are adequately maintained by the Contractor.

Monitoring visits shall be made as needed by the Awarding Official and/or the AOTR to assure that the work is being performed in accordance with the terms and conditions of the contract or if the Awarding Official determines there is reasonable cause to believe that grounds for reassumption of the contract, suspension of contract payments, or other serious contract performance deficiency may exist. Prior to any visit to the Contractor's site, the Awarding Official and/or the AOTR shall provide a reasonable advance notice to the Contractor that includes a description of the required visit.

Project/Program Review: The Awarding Official or the AOTR may conduct daily on-site monitoring visits, or alternatively if negotiated with the Contractor, critical milestone on-site visits. Program and project activities shall be reviewed for general contract compliance and written comments shall be provided to the Contractor of any deficiencies identified. The Awarding Official or AOTR retains the right to conduct final project inspections and audit of contract records to accept completed projects. If the Awarding Official or AOTR identifies problems during final inspection, the information shall be provided to the Contractor and shall be limited to items that are materially non-compliant.

## **SECTION “F”**

### **DELIVERIES OF PERFORMANCE**

**STATEMENT OF WORK**

**DELIVERABLES OF PERFORMANCE**

Contract Term: The Contractor shall commence work under this contract upon effective date of the Notice to Proceed and complete the work for the project in accordance with the Schedule of Project Target Dates, as shown in Section B.

**Schedule for Deliverables**

Administration and Planning: In accordance with 25 CFR, Subpart J, Section 900.130(c)(7), the Contractor shall submit quarterly Progress Report(s) and Financial Status Report(s) to the Awarding Official. The Progress Reports shall be submitted within twenty (20) days before the end of the calendar year (January 1 to December 31) and shall contain a narrative of the work accomplished, and the percentage of the work completed. A financial Status Report(s) shall be submitted within 30 calendar days after the end of the calendar year and shall contain a report of funds expended during the reporting period and total funds expended for the project. The Contractor will submit a copy of their Quarterly Construction Report within 30 days after the end of each quarter.

## **SECTION "I"**

### **FAR CLAUSES APPLICABLE TO THIS CONTRACT AND ALL SUBCONTRACTS UNDER THIS CONTRACT**

**52.252-2 Clauses Incorporated by Reference. (Feb 1998)**

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address: <http://www.arnet.gov/far/>

Clause No.	Title
FAR 52.202-01	Definitions. (JUL 2004)
FAR 52.203-05	Covenant Against Contingent Fees. (APR 1984) [APPLICABLE TO SUBCONTRACTORS ONLY] (ATSO)
FAR 52.203-10	Price or Fee Adjustment for Illegal or improper Activity. (JAN 1997) (ATSO)
FAR 52.203-12	Limitation on Payments to Influence Certain Federal Transactions. (SEPT 2005)
FAR 52.204-01	Approval of Contracts. (DEC 1989)
FAR 52.209-06	Protecting the Government's Interest when Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment. (JAN 2005)
FAR 52.211-10	Commencement, Prosecution, and Completion of Work. (APR 1984)
FAR 52.211-12	Liquidated Damages--Construction. (SEPT 2000) (ATSO)
FAR 52.211-18	Variation in Estimated Quantity. (APR 1984)
FAR 52.219-14	Limitation on Subcontracting. (DEC 1996) (ATSO)
FAR 52.222-03	Convict Labor. (JUN 2003)
FAR 52.222-04	Contract Work Hours and Safety Standards Act - Overtime Compensation. (JUL 2005)
FAR 52.222-06	Davis-Bacon Act. (JUL 2005) (ATSO)
FAR 52.222-07	Withholding of Funds. (FEB 1988) (ATSO)
FAR 52.222-08	Payrolls and Basic Records. (FEB 1988) (ATSO)
FAR 52.222-10	Compliance With Copeland Act Requirements. (FEB 1988) (ATSO)
FAR 52.222-11	Subcontracts (Labor Standards). (JUL 2005)
FAR 52.222-13	Compliance with Davis-Bacon & Related Act Regulations. (FEB 1988) (ATSO)
FAR 52.222-14	Disputes Concerning Labor Standards. (FEB 1988) (ATSO)
FAR 52.222-15	Certification of Eligibility. (FEB 1988) (ATSO)
FAR 52.222-26	Equal Opportunity. (APR 2002) (ATSO)
FAR 52.223-03	Hazardous Material Identification and Material Safety Data. (JAN 1997)
FAR 52.223-06	Drug-Free Workplace. (MAY 2001) (ATSO)
FAR 52.225-09	Buy American Act - Construction Materials. (JUN 1997)
FAR 52.225-13	Restriction on Certain Foreign Purchases. (FEB 2006)
FAR 52.227-04	Patent Indemnity - Construction Contracts. (APR 1984)
FAR 52.228-05	Insurance--Work on Government Installation. (JAN 1997)
FAR 52.228-15	Performance and Payment Bonds--Construction. (SEPT 2005) (ATSO)
FAR 52.229-03	Federal, State, and Local Taxes. (APR 2003) (ATSO)
FAR 52.232-18	Availability of Funds. (APR 1984)
FAR 52.232-23	Assignment of Claims. (JAN 1986)
FAR 52.232-27	Prompt Payment for Construction Contracts. (JUN 1997)
FAR 52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration. (OCT 2003)
FAR 52.236-02	Differing Site Conditions. (APR 1984)
FAR 52.236-03	Site Investigation and Conditions Affecting the Work. (APR 1984)
FAR 52.236-04	Physical Data. (APR 1984)
FAR 52.236-05	Material and Workmanship. (APR 1984)
FAR 52.236-06	Superintendence by the Contractor. (APR 1984)
FAR 52.236-07	Permits and Responsibilities. (NOV 1991)
FAR 52.236-08	Other Contracts. (APR 1984)
FAR 52.236-09	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements. (APR 1984)



FAR 52.236-10 Operations and Storage Areas. (APR 1984)  
FAR 52.236-11 Use and Possession Prior to Completion. (APR 1984)  
FAR 52.236-12 Cleaning Up. (APR 1984)  
FAR 52.236-13 Accident Prevention. (NOV 1991) – Alternate I (NOV 1991)  
FAR 52.236-17 Layout of Work. (APR 1984)  
FAR 52.236-21 Specifications and Drawings for Construction. (FEB 1997)  
FAR 52.243-04 Changes. (AUG 1987)  
FAR 52.246-12 Inspection of Construction. (AUG 1996)  
FAR 52.246-21 Warranty of Construction. (APR 1984)  
FAR 52.248-03 Value Engineering - Construction. (MAR 1989)

**DEPARTMENT OF THE INTERIOR CLAUSES**

DIAR 1452.204-70 Release of Claims – Department of the Interior. (MAY 1996)  
DIAR 1452.225-70 Buy American Act Notice – Department of the Interior. (APR 1984)  
DIAR 1452.228-70 Liability Insurance – Department of the Interior. (JUL 1995)

**OFFICE OF MANAGEMENT AND BUDGET CIRCULAR**

OMB Circular No. A-128 (Audits of State and Local Governments) – Policies, procedures and guidelines to implement the 1984 Single Act. Applies to fiscal periods beginning on or before June 30, 1996.

OMB Circular No. A-133 (Audits of States, Local Governments and Non-Profit Organizations) – Policies, procedures, and guidelines to implement the Single Audit Act amendments of 1996, includes new forms needed for submission of audit to the Single Audit Clearinghouse. Applies to fiscal periods beginning on or after July 1, 1996.

OMB Circular No. A-87 (Cost Principles for State and Local Government).

**NAVAJO NATION TRIBAL CODE**

15 NTC (Navajo Nation Tribal Code), Chapter 7, §1-19, Navajo Preference in Employment Act.

2 NTC, §3802, Preference in Employment for Navajo Veterans.

5 NTC, §201-216, Navajo Business Opportunity Act.

## **SECTION “J”**

### **ATTACHMENTS:**

**Environmental & Archeological Clearance Requirements  
R/W Terms & Conditions**

**Preliminary Engineer’s Estimate**

**Tribal Resolution**

**Environmental & Archeological Clearance  
Requirements  
R/W Terms & Conditions**



# United States Department of the Interior

Bureau of Indian Affairs  
Navajo Region  
P. O. Box 1060  
Gallup, New Mexico 87305



RECEIVED

MC 620: Division of Environmental, Cultural & Safety Management

MAR 18 2009

MAR 19 2009

## Memorandum

Navajo Region  
Division of Transportation

To: Division Manager  
Navajo Regional Office, Division of Transportation (NRODOT)  
Attention: Planning and Design Chief

From: NEPA Coordinator *H. J. [Signature]*

Through: Environmental Scientist *[Signature]*

Subject: Categorical Exclusion – N13 (3-2) Pavement Reconstruction Project in Shiprock Agency, San Juan County, New Mexico  
EA-09-034

The Request for a Categorical Exclusion, EA-09-034, for the proposed N13 (3-2) Pavement Reconstruction Project in the Shiprock Agency, San Juan County, New Mexico, has been reviewed in the Division of Environmental, Cultural and Safety Management, Navajo Regional Office. The existing N13 (3) rehabilitation work will occur entirely within the State of New Mexico and will begin seven miles south of Shiprock, New Mexico, at U.S. 491 (formerly U.S. 666) and traverse west for 11.6 miles. The right-of-way area encompasses 280.18 acres (113.46 ha) of Navajo Tribal Trust land. There will be no change from the existing foot print of the road. The NRO DOT proposes to remove the top of the existing pavement, mill it, and reuse it after a binder is added for the final driving surface. Traffic signs and guard rails will be replaced at locations where existing ones need replacement. Drainage pipes showing signs of rust will be replaced. Some minor fence work will occur at cattle passes/culverts and where existing wing braces to cattle guards have been damaged. Pavement markings will be included. The proposed project is located in Unplatted and Projected, T28 & 29N, R18 & 19W, NMPM, San Juan County, Navajo Reservation, New Mexico, Sulphur Springs, NM; Shiprock, NM; Yellow Hill, NM; and Mitton Rock, NM, USGS 7.5-Minute Quadrangles.

The Navajo Nation Department of Fish and Wildlife (NNDFW), Natural Heritage Program (NHP) was consulted regarding threatened and endangered species (April 9, 2008, Letter from NRO DOT to NNDFW). The NNDFW provided a list of species of concern both known to occur or having the potential to occur on the *Mitten Rock, NM; Yellow Hill, NM; Shiprock, NM; and Sulphur Spring, NM*, USGS 7.5-Minute Quadrangles containing the project boundaries. Ecosystems Management prepared a biological evaluation and submitted it to the NNDFW. The NNDFW issued Biological Resources Compliance Form (BRCF), NNDF&WL Review No. 020309B indicating Compliance with Tribal and Federal laws protecting biological resources (BRCF).

The Navajo Nation Historic Preservation Department (NNHPD), Roads Planning Program, conducted a cultural resources inventory of the project area on March 10, 11 and 12, 2008. The total area surveyed was 280.18 acres (113.46 hectares). The Navajo Nation Historic Preservation Department (NNHPD) determined that the undertaking will have no adverse effect on historic properties provided that conditions stated in the CRCF are followed. The BIA shall also insure that all borrow areas, material source areas, staging areas, access routes, and any other such areas are inventoried for cultural resources prior to any ground disturbance associated with the project. Prior determinations made by any federal agency that use of an area would have no effect on historic properties, or that an area contained no historic properties are sufficient to meet the terms of this condition, unless and until historic properties are discovered, as indicated below. Areas not previously inventoried must be assessed by BIA or its agents or contractors prior to any ground disturbing activities.

In the event of a discovery ("discovery" means any previously unidentified or incorrectly identified cultural resources including but not limited to archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices), all operations in the immediate vicinity of the discovery must cease and the Navajo Nation Historic Preservation Department must be notified (Cultural Resources Compliance Form, NNHPD No. 08-297).

A categorical exclusion is approved based on information provided in the environmental documents. Council on Environmental Quality (CEQ) Regulations, 40 CFR 1508.4, and 516 DM 10 (Department Manual), Appendix 10.5, Categorical Exclusions, L (8), "Resurfacing a highway without adding to the existing width" allow the proposed rehabilitation project to be categorically excluded.

The project categorical exclusion with supporting documents, designated as EA-09-034, is on file and available for review, in Room 129, Division of Environmental, Cultural and Safety Management, Navajo Regional Office, Bureau of Indian Affairs, 301 West Hill Street, Gallup, New Mexico 87301.

Should you have questions or need additional information, you may contact Ms. Harrilene J. Yazzie, Regional NEPA Coordinator, at (505) 863-8287.

**Best Management Practices**  
**Navajo Regional Division of Transportation**

In order to avoid, reduce, or mitigate potentially adverse impacts during the construction of this project, the Navajo Regional Division of Transportation will incorporate the following best management practices into the project specifications (to the fullest extent possible):

1. Construct the project in accordance with the Manual for Standard Specifications for Construction of roads on Federal Highway Projects (FP-03), and in compliance with all applicable Navajo Tribal and Federal laws, codes, safety regulations, and executive orders.
2. The BIA Contractor avoid any increase in sedimentation of bodies of water on or near the project by preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP). The Contractor will implement the SWPPP prior to a ground disturbing activities. Adjustments in the SWPPP, during construction, shall be coordinated with the BIA Project Manager to insure compliance with the Clean Water Act.
3. The BIA Contractor shall stockpile the existing top soil for uses in re-vegetation of borrow pits and roadway slopes in accordance with the FP-03 and contract specification.
4. The cut and fill volumes will be balanced as much as possible to avoid the use of borrow sources and all slopes shall be rounded to blend into the existing terrain. All disturbed ground on the project will be disked, seeded, mulched, and re-vegetated as called for in the specification.
5. Construction hours will be between 6:00 am and 8:00 pm, Monday through Saturday, (weather permitting). In high wildlife use areas, an alternate construction schedule may be used in consultation with the Navajo Fish & Wildlife Department and/or US Fish & Wildlife Department.
6. The Contractor's camp and equipment storage area will be kept clean and free of litter at all times, to prevent debris and litter from entering bodies of water. All trash will be disposed of in accordance with EPA regulations and all camp sites and equipment storage areas will be restored to their natural condition at project completion (in accordance with Navajo Tribal permit requirements).
7. The Contractor will daily inspect all construction equipment for leaks and notify the BIA COR/Project Manager on the removal of leaking equipment from the project site until the leaking equipment is repaired and spills cleaned up to the satisfaction of the Project Manager and Environmental Quality Office.
8. All oils, fuels, lubricants, and hydraulic fluids, will be kept in sealed, storage containers and or facilities that meet EPA regulations for preventing contamination of the environment.

9. Damage to trees and shrubs outside of the construction limits will be replaced by the Contractor at his expense as directed by the Project Manager.

10. Parking and staging areas will be limited to the construction limits. Utilization of existing roads for detours, storage of equipment, and the hauling of materials and water, will be used to the fullest extent possible. Storage areas within the construction limits will utilize existing disturbed areas and be kept as small as possible.

11. The installation of drainage structures will be undertaken in such fashion so as to minimize soil erosion and to provide for a minimum of 12 inches of cover over the pipe as measured from the roadway shoulder.

12. Structural replacements will be performed during periods of low-or-no flow periods to minimize water quality impacts. No dumping of waste concrete will be allowed on the project site. Any and all excess concrete and asphalt materials will be disposed of (off site) in accordance to EPA regulations and the FP-03.

13. The Contractor will acquire Navajo water-use and aggregate material permits through the BIA and Navajo Tribal process, and follow all requirements of such permits, including royalties and environmental protection.

14. The Navajo Regional Division of Transportation and construction Contractor will acquire and comply with the following regulations regarding the Federal Clean Water Act:

- a) Section 404 permit
- b) Water Quality (Section 402) Certification
- c) National Pollution Discharge Elimination System (NPDES) permit and the Storm Water Pollution Prevention Plan

15. Comply with all mitigation requirements concerning archaeological sites on or near the project site as defined in the compliance documents.

**CULTURAL RESOURCES COMPLIANCE FORM**  
**NAVAJO NATION HISTORIC PRESERVATION DEPARTMENT**  
**P.O. BOX 4950, WINDOW ROCK, ARIZONA 86515**

ROUTING: COPIES TO

NM SHPO  
X ACHP  
X BIA Real Estate Services  
X BIA-NRO-DOT  
X NNHPD-RPP  
X Red Valley Chapter  
X Shiprock Chapter  
X Pueblo of Acoma, Governor's Office  
X Pueblo of Laguna, Governor's Office  
X Pueblo of Zia, Governor's Office  
X Pueblo of Zuni, Governor's Office  
X The Hopi Tribe, Chairman's Office

NNHPD NO. 08-297  
OTHER PROJECT NO. BIA-NR-DOT N32245  
RPP 08-001

PROJECT TITLE: A Cultural Resources Assessment of 11.6 Miles of Navajo Route 13(3-2) for Pavement Rehabilitation, Shiprock and Red Valley Chapters, San Juan County, New Mexico.

LEAD AGENCY: Bureau of Indian Affairs, Navajo Region (BIA)

SPONSOR: BIA, Division of Transportation

PROJECT DESCRIPTION: The BIA-DOT proposes to improve Navajo Route N13(3-2) by rehabilitating the pavement. The ROW and the assessment area are the same: 18,600 meters/18.600 kilometers (11.6 miles) long and 61 meters (200 ft) wide, 30.5 meters (100 ft) wide right and left of the centerline. The total area investigated was 113.46 hectares (280.18 acres).

LAND STATUS: Tribal Trust

CHAPTER: Shiprock and Red Valley

LOCATION: (NAD 27, Zone 12)

<u>Designations</u>	<u>Northing</u>	<u>Easting</u>	<u>T.</u>	<u>R.</u>	<u>Section</u>
Centerline at BOP	4062749	704736	29N	18W	unplatted
Centerline at EOP	4054456	688624	28N	19W	unplatted
Assessment Boundary (Left) at BOP	4062719	704742	29N	18W	unplatted
Assessment Boundary (Right) at BOP	4062779	704730	29N	18W	unplatted
Assessment Boundary (Left) at EOP	4054426	688648	28N	19W	unplatted
Assessment Boundary (Right) at EOP	4054487	688603	28N	19W	unplatted

CULTURAL RESOURCE PROFESSIONALS: Judith Touchette, Peter Kakos

NAVAJO ANTIQUITIES PERMIT NO.: Navajo Tribal Code

DATE INSPECTED: March 10, 11, and 12, 20089

DATE OF REPORT: May 1, 2008

TOTAL ACREAGE INSPECTED: 113.46 hectares, 280.18 acres

METHOD OF INVESTIGATION: Parallel pedestrian transects 15 meters apart.

LIST OF CULTURAL RESOURCES FOUND: Six in-use properties

LIST OF ELIGIBLE PROPERTIES: None

LIST OF POTENTIALLY ELIGIBLE PROPERTIES: None

LIST OF NON-ELIGIBLE PROPERTIES: IUP-1, IUP-2, IUP-3, IUP-4, IUP-5, IUP-6.

LIST OF ARCHAEOLOGICAL RESOURCES: None

EFFECT/CONDITIONS OF COMPLIANCE: In accordance of Stipulation 3 of the document entitled "A Programmatic Agreement Among the Navajo Nation, the Bureau of Indian Affairs-Navajo Area Office, the Advisory Council on Historic Preservation, the Arizona State Historic Preservation Officer, the New Mexico State



Historic Preservation Officer, and the Utah State Historic Preservation Officer for Cultural Resource Management Projects Conducted Under the Auspices of the Navajo Nation Historic Preservation Department, Roads Planning Section, Within the Boundaries of the Navajo Nation," the Navajo Nation Historic Preservation Department has determined that the undertaking will have no adverse effect on historic properties, provided the following conditions are met: Before initiation of construction, the following tasks will be completed by the BIA or their agent:

- A) IUP-1: notify the Red Valley Chapter of the date construction will begin, as soon as it is known, so that IUP-1 can be removed by the family during construction and reinstalled after construction.
- B) IUP-3: the BIA or their agent will move the memorial against the ROW fence, and enclose the memorial by a permanent fence 2m per side. This activity will be monitored by a qualified archaeologist or ethnographer.
- C) IUP-2 and IUP-4 will be avoided by constructing temporary fences to enclose them within the ROW. The BIA or their agent will remove these two fences after completion of construction.


The BIA shall also insure that all borrow areas, material source areas, staging areas, access routes, and any other such areas are inventoried for cultural resources prior to any ground disturbance associated with the project. Prior determinations made by any federal agency that use of an area would have no effect on historic properties, or that an area contained no historic properties are sufficient to meet the terms of this condition, unless and until historic properties are discovered, as indicated below. Areas not previously inventoried must be assessed by BIA or its agents or contractors prior to any ground disturbing activities.

In the event of a discovery ("discovery" means any previously unidentified or incorrectly identified cultural resources including but not limited to archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices), all operations in the immediate vicinity of the discovery must cease and the Navajo Nation Historic Preservation Department must be notified at 928/871-7148.

FORM PREPARED: Nina Swidler  
FINALIZED: revised May 20, 2008

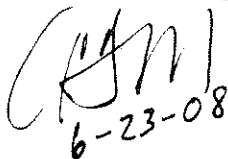
Notification to Proceed

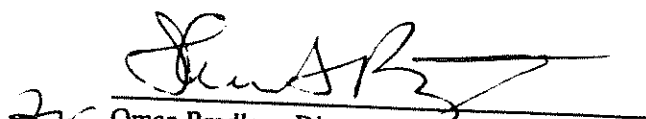
Recommended: Yes x No     
Conditions: Yes x No   

  
Alan S. Downer  
Navajo Nation Historic Preservation Officer

5.21.08  
Date

Agency Approval: Yes ✓ No   

  
6-23-08

  
Omar Bradley, Director  
Bureau of Indian Affairs-Navajo Region

6/23/08  
Date

RECEIVED

**CULTURAL RESOURCES INVENTORY REPORT DOCUMENTATION FORM**  
HPD 08-297

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and residents provided some names, chapter membership, and contact information. Family members were found for the memorials IUP-1, IUP-3, and IUP-4. The results of these interviews are reflected in the recommendations in Section 16.2. No family information was found for IUP-2. The users of the ceremonial site (IUP-5) were interviewed about any effect of the construction activities.

**15. CULTURAL RESOURCE FINDINGS:**

**a. Location/Identification of Each Resource:**

IUP-1, is a roadside memorial shrine within the ROW consisting of a wooden cross with attached artificial flowers and a US flag. A family member was interviewed about this memorial.

IUP-2, is a roadside memorial shrine within the ROW consisting of a wooden cross only. RPP could not find any related family members and thus, no information was recorded about this memorial.

IUP-3 is a memorial shrine with a white wooden cross, flowers, and a candle. The name and a date are inscribed on the cross. Family members were interviewed regarding this memorial.

IUP-4 is a memorial shrine that has no cross, just flowers, and is located inside the ROW. A family member identified this site and was interviewed.

IUP-5 is a *N'Dah* (Enemy Way) ceremonial site that is still used by the family and community residents. The site contains a standing *chaha'oh* constructed of logs and brush. It warrants consideration under the American Indian Religious Freedom Act (AIRFA). It is located outside of the ROW. A family member was contacted about any effect from construction.

IUP-6 is a stone pump house inside the ROW. It has been fenced to protect it from road maintenance activity. This in-use-property is less than 50 years old since it does not appear on the 1966 or 1979 editions of the quadrangle map but was assessed for an addition in 1988.

**b. Evaluation of Significance of Each Resource:**

IUP-1, 2, 3, 4, and 5 are less than 50 years old and only warrant consideration pursuant to the American Indian Religious Freedom Act. The memorials, IUP-1, IUP-2, IUP-3, and IUP-4 will be protected from construction activities; see Section 16.2. The users of IUP-5 feel there won't be any effect from this project. IUP-6 does not meet the 50-year requirement for the National Register of Historic Places (NRHP) nor warrant further consideration or protection under any federal or tribal laws, regulations, policies, or guidelines.

**16. MANAGEMENT SUMMARY (RECOMMENDATIONS):**

RPP recommends that the project proceed as designed, provided that BIA meets the following conditions:

1) Construction activity is confined to the right-of-way.

2) Before initiation of construction, the following tasks will be completed by the BIA or their agent:

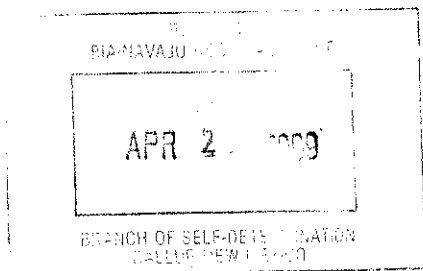
A) IUP-1: notify the Red Valley Chapter of the date construction will begin, as soon as it is known, so that IUP-1 can be removed by the family during construction and reinstalled after construction.

B) IUP-3: the BIA or their agent will move the memorial against the ROW fence, and enclose the memorial by a permanent fence 2m per side. This activity will be monitored by a qualified archaeologist or ethnographer.

C) IUP-2 and IUP-4 will be avoided by constructing temporary fences to enclose them within the ROW. The BIA or their agent will remove these two fences after completion of construction.

D) IUP-5 and IUP-6: no treatment required.

**TRIBAL RESOLUTION  
AUTHORIZING CONTRACT**



NECA12-13-92

**RESOLUTION OF THE  
BOARD OF DIRECTORS OF  
NAVAJO ENGINEERING AND CONSTRUCTION AUTHORITY**

**Delegating to the Navajo Engineering and Construction Authority  
General Manager the Authority to Negotiate and Execute  
Contracts for Such Projects  
Under Public Law 93-638**

**WHEREAS:**

1. The Navajo Engineering and Construction Authority (NECA) is an enterprise of the Navajo Nation organized to engage in general engineering and the heavy construction industry, train Navajo people, provide employment to Navajo tribal members, be the premier heavy construction contractor serving the Navajo Nation; and to do everything necessary and proper to accomplish the purposes of NECA, 5 N.T.C. §1972(a), as amended; and

2. The Navajo Engineering and Construction Authority's Plan of Operation, specifically 5 N.T.C. §1972 (b)(12), authorizes the NECA Board of Directors to enter into, make, perform, and carry out or cancel or rescind contracts, for any lawful purpose set forth in 5 N.T.C. §1972 and to delegate as much of this authority as may be advisable to the General Manager or to the President of the Board of Directors, and

3. The contracting of projects under Public Law 93-638 (Indian Self-Determination and Education Assistance Act) helps fulfill the purposes for which the Navajo Engineering and Construction Authority was organized as well as the stated purposes of the Act itself, and

4. Several projects will be available for negotiation in the near future.

**NOW THEREFORE BE IT RESOLVED THAT:**

1. The Navajo Engineering and Construction Authority Board of Directors hereby delegates the authority to the Navajo Engineering and Construction Authority's General Manager the Authority to

negotiate and execute contracts for such projects pursuant to Public Law 93-638.

2. The authority granted under this resolution shall remain in effect until rescinded by resolution of the Navajo Engineering and Construction Authority Board of Directors.

3. The Navajo Engineering and Construction Authority General Manager shall report to the Navajo Engineering and Construction Authority Board of Directors on a quarterly basis as to the status of all negotiations and the progress of all PL 93-638 projects under contract.

4. The Navajo Engineering and Construction Authority Board of Directors further directs and authorizes the President of the Board of Directors and Navajo Engineering and Construction Authority's Legal Counsel to do any and all things necessary and proper to ensure that NECA secures contracts under Public Law 93-638.

#### CERTIFICATION

I hereby certify that the foregoing resolution was duly considered by the Board of Directors of the Navajo Engineering and Construction Authority, at a duly called meeting at Phoenix, Arizona, at which a quorum was present and that same was passed by a vote of 8 in favor, 0 opposed this 11th day of December, 1992.



Ernest Hubbell, President,  
Board of Directors, Navajo Engineering  
and Construction Authority

IGRAP-76-93

Class "C" Resolution  
No BIA Action Required.

RESOLUTION OF THE  
INTERGOVERNMENTAL RELATIONS COMMITTEE  
OF THE NAVAJO NATION COUNCIL

Recognizing the Navajo Engineering and Construction Authority's Authority to Contract With the United States Government Pursuant to Public Law 93-638 and Other Federal Laws for Construction Projects Within the Navajo Nation; Recognizing the Clarification of the Navajo Engineering and Construction Authority Plan of Operation Clarifying the Navajo Engineering and Construction Authority's Contracting Authority

WHEREAS:

1. The Intergovernmental Relations Committee of the Navajo Nation Council is empowered by 2 N.T.C., Section 824 (b) (4), as amended, to authorize, review, approve and accept any and all contracts, grants and associated budgets for the implementation of Public Law 93-638; and

2. The Navajo Engineering and Construction Authority (NECA) was established as an enterprise of the Navajo Nation, by Resolution CJN-56-72, and a Plan of Operation was adopted delegating certain authorities, including contracting authority to NECA; and

3. By Navajo Tribal Council Resolution CJN-37-75, the Bureau of Indian Affairs was requested to contract with NECA pursuant to Public Law 93-638 any construction contracts. Resolution CJN-37-75 further authorized the NECA to negotiate and enter into contracts pursuant to Public Law 93-638 for construction projects within the Navajo Nation. A copy of Resolution CJN-37-75 is attached hereto and incorporated herein as Exhibit "A"; and

4. By Resolution CN-67-89, the Navajo Nation Council amended the Plan of Operation for NECA and continued to grant broad contracting authority to NECA, 5 N.T.C., Section 1972 (b) (12); and

5. The delegation broad contracting authority granted by Resolution CN-67-89 and Resolution CJN-37-75 remain unchanged and unaffected by the Title 2 Amendments of 1989; and

6. The delegation of authority to the Intergovernmental Relations Committee of the Navajo Nation Council, by 2 N.T.C., Section 824 (b) (4), is for the purpose of authorizing review, approval and acceptance of contracts, grants and associated budgets for the Navajo Nation assumption of Bureau of Indian Affairs programs or functions; and

7. The type of construction contracts entered into and negotiated by the NECA with the Bureau of Indian Affairs is different than an attempt by the Navajo Nation to assume a Bureau of Indian Affairs program and function; and

8. The Navajo Area Director, Walter R. Mills, has by letter dated August 7, 1991, required the responsible Navajo Nation Council oversight committee to reauthorize Public Law 93-638 contracting authority of NECA in spite of 5 N.T.C., Section 1972 (b) (12). There is no federal authority which requires periodic reauthorization of P.L. 93-638 contracting authority. A copy of Area Director Mills' letter is attached hereto and incorporated herein as Exhibit "B"; and

9. The intent of 5 N.T.C., Section 1972 (b) (12) and the purpose of NECA are to run NECA as a business, thereby eliminating the need for tribal approval of each and every contract with the United States Government; and

10. The NECA contracting of construction projects with the United States Government is consistent with the intent and purpose of Public Law 93-638; and

11. The Economic Development Committee of the Navajo Nation Council, pursuant to its authority to amend the NECA Plan of Operation, 5 N.T.C., Section 1981, and its legislative oversight authority, 2 N.T.C., Section 724 (e), by Resolution EDCD-118-92 clarified that NECA grant of broad contracting authority does not require prior or subsequent Navajo Nation approval. A copy of Resolution EDCD-118-92 is attached hereto and incorporated herein as Exhibit "C"; and

12. It is in the best interest of the Navajo Nation and NECA that the contracting authority granted to NECA for Public Law 93-638 contracts and other contracts with the United States Government for construction of projects within the Navajo Nation be reaffirmed and that the amendments approved by the Economic Development Committee of the Navajo Nation Council, Resolution EDCD-118-92, be affirmed to clarify the scope of NECA's contracting authority.

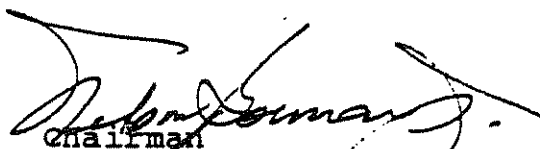
NOW THEREFORE BE IT RESOLVED THAT:

1. The Intergovernmental Relations Committee of the Navajo Nation Council hereby recognizes Navajo Tribal Council Resolution CJN-37-75 and authorizes the Navajo Engineering and Construction Authority the authority to negotiate and execute contracts with the United States Government pursuant to Public Law 93-638 and other federal laws for construction projects within the Navajo Nation without prior or subsequent Navajo Nation approval.

2. The Intergovernmental Relations Committee of the Navajo Nation Council further approves the information attached hereto and incorporated herein as Exhibit "D" for purposes of satisfying 25 C.F.R., Section 271.18 (c) (2).

CERTIFICATION

I hereby certify that the foregoing resolution was duly considered by the Intergovernmental Relations Committee of the Navajo Nation Council at a duly called meeting at Window Rock, Navajo Nation (Arizona), at which a quorum was present and that same was passed by a vote of 8 in favor, 0 opposed and 1 abstained, this 26th day of April, 1993.



Chairman

Intergovernmental Relations Committee