

SPECIAL CONTRACT REQUIREMENTS

FOR

NAVAJO DIVISION OF TRANSPORTATION
DEPARTMENT OF ROADS

BLACK MESA – N8065
NAVAJO COUNTY, ARIZONA

BLACK MESA LOW FLOW CROSSING



PROPOSED WORK:

The proposed project is located in Navajo County within the State of Arizona, beginning approximately 19.5 miles southwest of Rough Rock and 6.5 miles southwest of the Black Mesa Community School on N8065. The proposed work consists of constructing a concrete low flow crossing and associated roadway grading on N8065 at the intersection with Oraibi Wash.

Submitted By:

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SPECIAL CONTRACT REQUIREMENTS
FP-14, U.S. CUSTOMARY UNITS

All material under the Divisions of the “Standard Specifications for Construction of Roads and Bridges On Federal Highway Projects, FP-14, U.S. Customary Units,” henceforth called FP-14, published in book form by the U.S. Department of Transportation, Federal Highway Administration, shall apply to this contract as revised below.

Arizona Dept of Transportation (ADOT):

The project plans reference certain erosion protection standard details promulgated by Arizona Dept of Transportation (ADOT). The contractor shall use the latest Edition for the references in these Special Provisions and on ADOT Standard Details.

Copies are available on the internet at <http://www.AZDOT.gov>

DIVISION 100 GENERAL REQUIREMENTS

Section 101 – TERMS, FORMAT, AND DEFINITIONS

101.03 Abbreviations.

ADD:

(a) Acronyms.

Page 2, after “ANSI” add the following: “AO – Awarding Official”

Page 2, after “ANSI” add the following: “AOR – Awarding Officials Representative”

Page 3, after “NIST” add the following: “NR – Navajo Road”

Page 3, after “NIST” add the following: “NDOT – Navajo Division of Transportation”

DELETE:

(e) Slope notation (vertical:horizontal)

And INSERT:

(e) U.S. Customary units slope notation (horizontal:vertical). Express the slope as a ratio of a number of units horizontal to one unit vertical.

SECTION 103 – SCOPE OF WORK

103.05 Partnering.

DELETE the subsection in its entirety.

SECTION 104 – CONTROL OF WORK

104.01 Authority of the Contracting Officer (CO).

ADD:

The Contracting Officer's Representative (COR) may act for the Contracting Officer in administering his/her contract, but he/she shall not be empowered to award, agree to, or execute any contract modification thereto, or in any way to obligate the government, to approve Portland cement and asphalt concrete mix designs, or to make a final decision on any matter which would be subject to appeal under the disputes clause of the contract.

104.03 (b) Specific requirements for concrete and miscellaneous structures:

ADD:

(2)(o) Structural concrete drawings and details.

104.05 Load Restrictions.

ADD:

No loads shall be hauled over aggregate base courses or bituminous pavements which exceed legal load limits for hauling units as prescribed within the jurisdiction of the local State Department of Transportation (Highways) **ARIZONA REVISED STATUTES, TITLE 28, SECTION 1009.01**, or local Tribal Ordinance.

SECTION 107 – LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

107.02 Protection and Restoration of Property and Landscape

ADD after the third paragraph, first sentence:

Contractor to provide exhibit showing proposed staging areas to CO for approval two weeks prior to mobilization. Any disturbed area outside of construction limits is to be hand raked to remove vehicle tire tracks and returned to pre-construction condition. If damaged, any damage caused by construction activity is to be repaired or replaced as determined by the CO and at the contractor' expense by the conclusion of the project.

107.10 Environmental Protection.

ADD:

In compliance with Executive Order 13112 regarding noxious weeds, all earthmoving and hauling equipment will be washed at the contractor's storage facility prior to arriving on the construction site to prevent the introduction of noxious weed seed.

In compliance with Executive Order 13112 regarding noxious weeds, all earthmoving and hauling equipment shall be washed prior to leaving the construction site to prevent noxious weed seeds from leaving the site.

Contractor washing of all earthmoving and hauling equipment will not be measured directly for payment but will be considered a subsidiary obligation of the contract.

The Contractor shall submit a draft Environmental Compliance Plan **10 days after the award of the contract**. The Environmental Compliance Plan will be discussed and will either be accepted or returned for revisions at the preconstruction conference. Upon acceptance of the Environmental Compliance Plan the contractor will submit five (5) copies of the accepted plan to the Contracting Officer.

The plan is to detail the permits, testing, reports and actions that Contractor proposes to do in order to be in compliance with the **CLEAN AIR ACT, CLEAN WATER ACT, NATIONAL ENVIRONMENTAL POLICY ACT, the NATIONAL HISTORIC PRESERVATION ACT** and other laws and regulations controlling pollution of the environment.

Contractors' equipment (crushers, asphalt concrete plants, Portland cement plants, etc.) must be permitted by the State, County or Tribal Air Pollution Control District that the equipment will be operating in. As part of the Environmental Compliance Plan the Contractor must furnish a copy of the permit for each unit of equipment that will be used on the project.

The Environmental Compliance Plan must be accepted before any construction activities can begin. A guide for use in completing the Environmental Compliance Plan is shown on the next page.

GUIDE FOR ENVIRONMENTAL COMPLIANCE PLAN

PROJECT:

1. Compliance with CLEAN AIR ACT and CLEAN WATER ACT.

A. Roadway. (list equipment)

1. Dust.
2. Emissions.

B. Borrow and aggregate pits. (list equipment)

1. Dust.
2. Emissions.
3. Restoration.

C. Crusher, Asphalt and Concrete Batch Plants. (list equipment)

1. Dust.
 - a. Permits.
 - b. Spray bars.
2. Emissions.
 - a. Permits.
 - b. Stacks.
 - c. Type of fuel.

D. Equipment yard.

1. Dust.
2. Fuel storage.
3. Disposal of used oil.
4. Restoration.

E. Detours and haul roads.

1. Dust.
2. Emissions.
3. Restoration.

F. Hazardous Materials.

1. Safety Practices.
2. Contingency Spill Plan.
3. Minor Spill Cleanup.

G. Project Cleanup.

H. Disposal of Materials.

II. Compliance with NATIONAL ENVIRONMENTAL POLICY ACT and NATIONAL HISTORIC PRESERVATION ACT.

Contractor's Signature

Date

Recommended by COR

Date

Approved by CO

Date

As part of the compliance with the **National Environmental Policy Act**, the Contractor must complete an environmental document in accordance with **BIA NEPA Handbook 59 IAM 3-H**, if he elects to do any of the following:

1. Produce materials from a contractor-furnished source.
2. Utilize a site to set up a plant for the crushing and processing of the base and/or surfacing materials, or an equipment yard.
3. Dispose of materials in other than a commercial or approved public land fill.
4. Construct a haul road or detour out of the approved right-of-way.

Before the Contractor may enter/occupy any area outside of the right-of-way, including vehicle turnaround areas, construction yards, staging areas, material sources, etc., the Contractor must submit to the CO a detailed location map and activity description. If the CO determines that NEPA documentation is necessary, the Contractor must prepare an environmental assessment which shall include but not be limited to the following:

1. A Cultural Resource Survey and Report for the areas that may be affected by the project, must be completed by a person with acknowledged credentials.
2. An Endangered Species Biological Assessment must be prepared by a qualified person, if there are any threatened or endangered species that may be in the project area.
3. The location and ownership of the proposed material source, equipment yard, haul road, etc., with vicinity maps.
4. The anticipated area to be impacted, volume of material to be removed, length and width of haul road, and other pertinent features.
5. Former use, if known, of the source and/or haul roads and the existing condition.
6. Identify and location of nearby lakes, streams, parks, wildlife refuges or similar areas that may be affected.
7. A description of the visual surroundings and the impact of this action on the visual setting.
8. Description of the wildlife and plants and their habitat.
9. Identification of present and planned future land use and an analysis of the compatibility of this action with future use.
10. Procedures to minimize dust and noise.

11. Description of the impacts to the quality and quantity of water resulting from runoff, watering, flooding, or pumping.
12. Effects of hauling activities upon local traffic and roads and the mitigation measures planned where problems are expected.
13. Handling of fuel, potential spills and disposal of used oil.
14. Include proof of compliance and permits if required with **Sections 308, 401 and 404 of the Clean Water Act, Section 114 of the Clean Air Act** and other requirements that may apply concerning zoning, health, mining land use, flood plains, etc.
15. Effects which could result from removing and/or stockpiling materials within flood plains.
16. Final condition in which the affected features will be left, such as sloped, topsoil replaced, area seeded, etc.

The Environmental Assessment shall be submitted to the CO for review. ***If the CO determines that the environmental document is sufficient,*** then the Contractor shall submit the Environmental Assessment to the Agency Superintendent for approving signature and a copy given to the COR, prior to engaging in any activity outside of the existing right-of-way.

If the CO determines that the environmental assessment is insufficient, then the assessment will be returned to the Contractor for additional work and re-submittal to the CO.

Where appropriate, permission from allottees, private land owners and/or other government entities must be obtained.

SECTION 108 – PROSECUTION AND PROGRESS

108.01 Commencement, Prosecution, and Completion of Work.

DELETE In the second paragraph, second sentence:

“Seven days before the preconstruction conference,”

and **INSERT** the following:

“Ten days after the award of the Contract,”

108.03 Determination and Extension of Contract Time.

ADD:

Stop work orders on some but not all items will be considered “partial suspension”. Stop work orders on all items will be considered “total suspension”.

When the CO, in accordance with **Subsection 108.05(a)**, orders the total suspension of the performance of work for one or more calendar days, the number of days from the effective date of the suspension until the effective date of the CO’s order to resume operations, will not be included in the count of the contract time.

During periods of partial suspension of the work in accordance with **Subsection 108.05(a)**, the total number of calendar days to be charged as contract time, shall be computed by multiplying the number of calendar days of the original contract time by the ratio of the amount earned during the period of partial suspension to the original contract amount.

In no case shall the number of calendar days to be charged as contract time for a period of partial suspension (computed as described in the previous paragraph) exceed the total time of the effective dates of the partial suspension issued by the CO.

For the purpose of computing the number of calendar days to be charged, the amount earned during a period of partial suspension shall exclude any allowance for materials not incorporated in the work but shall include any allowance made for the roadside production of aggregate and other work performed at the site.

Reasonably predictable weather conditions are not a valid reason for adjustment of contract time.

108.04 Failure to Complete Work on Time.

DELETE the fourth paragraph which begins with “Liquidated damages in an amount equal to 20 percent.... .”

108.05 Stop Order. (Suspension of Work)

DELETE In the first line of the last paragraph, the words:

“time or”

ADD the following subsection:

108.06 Labor Preference

Contractor shall make a good faith effort to utilize qualified local labor force participation for elements of work that can be subcontracted for this contract. Contractor shall work with the Navajo Nation Division of Natural Resources, Parks and Recreation Department at (925) 871-6647.

SECTION 109 – MEASUREMENT AND PAYMENT

109.02 Measurement Terms and Definitions

DELETE:

(c) Cubic yard (cubic meter).

And **INSERT:**

(c) Cubic meter (m³, Cu.M. or CM).

DELETE:

(e) Each.

And **INSERT:**

(d) Each (EA).

DELETE:

(h) Linear foot (Meter).

And **INSERT:**

(g) Linear meter (m or LM).

DELETE:

(i) Lump sum.

And **INSERT:**

(h) Lump sum (LS).

DELETE:

(m) Pound.

And **INSERT:**

(k) Kilogram (KG).

DELETE:

(o) Square foot and Square yard.

And **INSERT**

(l) Square meter (m², Sq.M. or SM).

ADD:

(r) 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 is designated "Lump Sum", the quantity is designated as "1".

109.06 Pricing of Adjustments.

ADD the following sentence after the first paragraph:

A method of adjusting the cost (i.e. unit price) of bituminous material has been described in subsection 402.19(a).

(b) Postwork pricing.

(1) Direct costs.

(c) Equipment.

DELETE the paragraphs under **(1), (2), and (3)** and **INSERT:**

For any machinery or special equipment (other than small tools), including fuel and lubricants, plus transportation costs, the use of which has been authorized by the COR including the use for hauling of materials and equipment, the Contractor shall receive the hourly equipment rental rates in effect at the time force account work is authorized. These hourly rental rates shall be determined by using the monthly rental rate taken from the Rental Rate Blue Book for construction equipment divided by 176. The Rental Rate Blue Book for Construction Equipment is published by Equipment Guide-Book Company, Palo Alto, California. Operating costs in accordance with the rates listed in the Rental Rate Blue Book will be allowed for each and every

hour the machinery or equipment is actually operated. Rates not provided by the Rental Rate Blue Book must be approved by the CO prior to the start of any Force Account work on which the equipment will be used. No adjustment percentage, as shown on the maps in the Rental Rate Blue Book shall be used with the rental rate because of a predominate area condition.

If the machinery or equipment is required to be at the work site on standby, but is not operating, the Contractor may be compensated at the hourly rate exclusive of operating costs. The duration of standby time is to be determined when standby time is approved.

When the equipment is to be used on multiple shifts, a charge of 50 percent of the base rental rate plus operating service rate for each hour of additional shifts will apply. The number of hours for each shift shall be agreed upon by the Contractor and COR prior to starting of work.

“Move-in” and Move-out” charges required by the piece of equipment not available on the job will be included as part of the extra work at actual transportation cost, if the particular piece of equipment is not moved onto the specific job under its own power. Total hourly rate, without operator, shall be allowed for equipment moved to the site of the work under its own power. This shall apply to equipment moved within the limits of the project. “Move-in” charges will be paid only once for any particular piece of equipment except in unusual circumstances which must be justified in writing and agreed to by the COR.

Whenever the “Manufacturer’s Rated Capacity” falls between those shown in this book, the closest will be used. Do not interpolate for rates in between.

All rates shall be agreed upon in writing before any work is begun. No percentages shall be added to this amount.

(2) Overhead.

DELETE the first paragraph and **INSERT:**

The overhead factor shall be applied to the direct costs. The Contractor shall be limited to 10% overhead when he and/or his subcontractors perform work for that portion performed with their respective forces.

(3) Profit.

DELETE the first paragraph.

109.08 Progress Payments.

DELETE (a), (b), (c), (d) and (e) and **INSERT:**

Progress payments will be made on the first of each month as the work proceeds except no payment will be made for less than \$2,500. Progress payments will be prepared by the COR and made by the CO in full without retention when progress is considered satisfactory and the work may reasonably be expected to be completed within the contract time, progress payments will be withheld if the Contractor's Construction Schedule (CPM) is not current and accepted by the Government.

Noncompliance with or the failure to provide timely submittal of contract requirements will be justification of withholding of progress payments or portions thereof.

(f) Partial payments.

ADD:

Partial Payments for Material on Hand

Materials listed below may be considered for partial payment when the materials are delivered and stockpiled or produced on the project site or on another site approved by the COR. Such partial payment will be made at the contract unit price for the quantity of material on hand and multiplied by the Partial Payment Factor.

Type of Material	Partial Payment Factor
Aggregate Subbase	0.35
Aggregate Base	0.35
Mineral Aggregate	0.35
Cover Aggregate	0.35

The cost of hauling the stockpiled material listed above to the project site may be included in the partial payment at a rate of \$0.15 per ton per mile.

Cover aggregate will be measured by the Ton in the hauling vehicle immediately prior to placement on the roadway surface to be treated.

DELETE the last paragraph of this subsection beginning with "The quantity paid . . ." and **INSERT** the following:

109.10 Force Account Work. Payment for work performed on a force account basis will be made as follows:

a) Labor.

(1) Wages. Before beginning force account work, agree to a force account wage rate, which includes fringe benefits, for each labor classification and foreman. The wage rates shall not be in excess of the rates paid for comparable work on the project. All labor and foremen employed on the force account will be paid at the agreed wage rates.

(2) Payroll costs. All payroll costs applicable to the wages paid in (1) above will be paid at their actual documented cost. Payroll costs include such costs as FICA, FUTA, worker's compensation, insurance, and tax levies. If the actual payroll costs cannot be documented, a fixed percentage of 25% will be added to the wages to cover such costs.

The Contractor shall submit a certified cost breakdown to the CO at the preconstruction conference of how the actual payroll cost percentages for FICA, FUTA, worker's compensation, insurance, tax levies, etc., were calculated before beginning work.

(3) Subsistence. Subsistence and/or travel costs paid for labor and foremen will be paid at their actual documented cost.

(4) Overhead and profit. An overhead factor of 10% will be applied to the direct costs determined in (1), (2), and (3) above. A profit factor of 10% will then be applied to the direct costs plus overhead costs.

b) Material. The actual invoice cost of material delivered to the work and accepted will be paid. Transportation costs, exclusive of equipment costs paid in **c)** below, will also be paid as part of the cost of material.

A 10% overhead factor followed by a 10% profit factor will be applied to the cost of material.

c) Equipment.

(1) Contractor owned equipment. Equipment rates for all equipment and machinery (other than small tools) owned by the Contractor and/or subcontractor and authorized for use will be determined according to Subsection 109.06(a)(3) as amended.

(2) Rented equipment. When a piece of equipment is rented or leased exclusively for the force account work, the actual invoice amount plus operating expenses will be paid provided such rates are reasonably in line with prevailing market rates for such equipment.

(3) Owner operated equipment. Payment for owner-operated equipment used on force account work will be based on the actual paid invoice plus a markup of 5%.

(4) Transportation costs. Transportation costs may be in the form of equipment hours (if the equipment is moved under its own power), common carrier invoice amounts, or equipment and labor hours (if moved by the Contractor's and/or subcontractor's own forces). Expenses for moving each piece of equipment to and from the force account work site will be paid provided:

a) Transportation costs are not included in any other invoice.

b) The equipment is obtained from the nearest approved source.

c) The return charges do not exceed the delivery charges.

d) The equipment is not used at the force account work site on other contract work immediately before, after, or during the force account work.

(5) Overhead and Profit. A 10% overhead factor followed by a 10% profit factor will be allowed for all equipment costs as determined in (2) and (4) above.

d) Miscellaneous. No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is provided.

e) Subcontracting. Invoiced amounts for force account work performed by subcontractors are limited by (a) through (d) above. Payment will be made for the approved subcontractor invoice plus a markup of 5% for administrative costs in connection with the subcontract work.

f) Records and statements. Maintain a daily record of force account work on forms provided or approved. Include the following detail:

(1) Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman. At the end of the pay period, support this information with copies of the certified payroll.

(2) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of equipment.

(3) Quantities of material, prices, and extensions.

(4) Transportation of material.

Attach supporting invoices for material used and transportation charges.

If material used on the force account work is not specifically purchased for such work but is taken from the Contractor's stock, furnish an affidavit in lieu of an invoice certifying that the material was taken from stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

Compare the records of the cost. The Contractor and the CO shall sign the record and each party retain a copy.

g) Payment. No payment will be made for work performed on a force account basis until the signed records and statements required in **(f)** have been prepared.

The amount paid will be based on these records and statements. The additional payments for overhead and markup above will constitute full compensation for all items of

expense not specifically designated. The total payment, made as provided above, constitutes full compensation for such work. Payment will be made with the regular progress payments.

DIVISION 150 – PROJECT REQUIREMENTS

SECTION 151 – MOBILIZATION

151.09 Payment

DELETE the text under this subsection and **INSERT**:

One third of the mobilization lump sum, not to exceed 5% of the original contract amount, will be paid when the COR has determined that a significant amount of equipment has been mobilized to the project site which will be used to perform portions of the contract work.

The remaining payment(s) of mobilization will be determined by the percentage of work completed for the contract up to 90 percent of the mobilization lump sum. The remaining balance shall be paid after final acceptance of the project.

Payment will be made under:

Pay Item	Pay Unit
15101-0000 Mobilization	LS

SECTION 152 – CONSTRUCTION SURVEY AND STAKING

152.04 General.

(a) Personnel

ADD:

The person responsible for the surveying shall be a Registered Land Surveyor (RLS) in the state where the project is located and be proficient in construction surveying and have a sound knowledge of the specifications as they relate to construction staking. The crew chief shall be NICET Certified Level III or a RLS and shall be capable of supervising a survey crew, calculating grades, horizontal and vertical curves, and all other work necessary to complete the construction staking. **The crew chief shall be on the project whenever surveying and/or staking is in progress.** A minimum of 50 percent of the survey crew shall be NICET Certified Level II or possess at least a Land Surveyor-In-Training certificate.

152.05 Survey and Staking Requirements.

(a) Control points.

ADD:

Reference all control points with **5/8" diameter x 24"** rebar with aluminum or plastic caps.

(c) Slope stakes and references.

ADD:

The Contractor shall set stakes on 10 foot stations on both sides of centerline. Stakes shall be set at right angles to roadway centerlines. Stakes for roadway and drainage structures shall be set and marked as shown on the project plans.

All slope stakes shall be sprayed with one coat of fluorescent red, pink or orange paint prior to marking the slope stake data on the slope stake.

(f) Grade finishing stakes.

ADD:

The Contractor shall set blue-top hubs or nails, on centerline and shoulders for subgrade, special subbase and aggregate base course. Vertical tolerance for these hubs shall be ± 0.03 feet (see Table 152-1). **Note that the soil is predominately sandstone bedrock.**

(j) Borrow and waste sites.

ADD:

No measurements shall be performed until the site has been cleared and grubbed.

152.07 Measurement.

DELETE the text under this subsection and **INSERT:**

Construction survey and staking will be measured by the lump sum.

152.08 Payment.

ADD:

Payment will be made under:

Pay Item	Pay Unit
15201-0000 Construction Survey and Staking	LS

SECTION 153 – CONTRACTOR QUALITY CONTROL

153.03 Quality Control Plan (QCP).

DELETE the second sentence and **INSERT**:

The Contractor's Quality Control Plan must be stamped by a Civil Engineer who is registered in the state where the work is to be performed.

153.09 Measurement and Payment

DELETE this subsection and **INSERT**:

No measurement shall be made for Contractor's Quality Control Plan. No payments for Quality Control Plan shall be made.

SECTION 154 – CONTRACTOR SAMPLING AND TESTING

154.02 General

ADD:

General Requirements, Independent Testing Laboratory.

Sampling and testing on NDOT road construction projects shall be performed by an Independent Testing Laboratory. The Independent Testing Laboratory and its technicians must be experienced and proficient in the fields for which the work is to be performed.

To receive NDOT approval the Independent Testing Laboratory shall meet the following requirements:

a) Programs Participation.

The Independent Testing Laboratory shall participate in the AASHTO Materials Reference Laboratory (AMRL) and/or Cement and Concrete Reference Laboratory (CCRL) laboratory inspection program as appropriate for the testing being performed. A copy of the current Certificate of Accreditation shall be submitted with their Quality Control Plan. Copies of all applications, correspondence, reports and corrective actions shall be submitted to the Regional Road Engineer as requested.

b) Documentation.

1. The Independent Testing Laboratory shall provide documentation describing their organization, organizational chart, personnel responsibility, authority, education, training, experience and certifications; inventory of facilities and equipment used for testing (manufacturer, model and serial number, calibration and tolerances); written laboratory procedural manual; methods used for recording, processing and reporting data; inventory of reference material, standards and test methods. This documentation shall be updated annually, or more frequently when substantial changes occur.
2. The Independent Testing Laboratory shall provide documentation outlining their own Quality Control, Quality Assurance and Equipment Calibration programs for their main lab and any satellite or project labs.
3. It shall be the responsibility of the Contractor to promptly provide the documents from the Independent Testing Laboratory necessary to show existing and continuing compliance with the requirements outlined herein.

c) Personnel.

1. The services of the Independent Testing Laboratory shall be under the direction of a full-time employee who is a licensed engineer in the State the project is located. He/she shall have a minimum of (5) five years of professional engineering experience in laboratory and field testing of the specific materials such as soils, Portland cement and asphalt concrete to be incorporated into the project which he/she directs. **The Engineer shall review the work in the field at the project site on a bi-weekly basis, or more frequently, if required.**
2. The supervisors of laboratory and/or field technicians shall have at least three years experience in inspection and/or testing of materials involved in the related area of construction. The field supervisors of the laboratory and/or field technicians shall be certified by the National Institute for Certification in Engineering Technologies (NICET) at Level III or above in the appropriate Construction Materials Testing field or meet one of the following requirements:
 - (aa) Be a licensed Engineer by the State in which the project is located with one year of highway experience acceptable to the NDOT.
 - (bb) Be licensed as an Engineer-In-Training by the State in which the project is located with two years of experience acceptable to the NDOT.
 - (cc) Hold a Bachelor of Science Degree in Civil Engineering or an Associate Degree in Civil Engineering Technology with three years of highway experience acceptable to the NDOT.
3. Supervisory Technicians performing the actual testing and/or inspection shall be NICET certified at Level III or above in the appropriate Construction Materials Testing field or meet the requirements of 2 (a)-(c).

d) Equipment.

1. Testing machines and equipment must be calibrated annually or more frequently by impartial means using devices of accuracy traceable to the National Bureau of Standards.
2. The Independent Testing Laboratory will be open to inspection of equipment and procedures by the NDOT or its representatives.

e) Other Work.

In fields other than those covered by the referenced AASHTO or ASTM Standards, the Independent Testing Laboratory shall accept only those assignments which it is able to perform competently by use of its own personnel and equipment. Any work to be subcontracted must be performed by laboratories meeting the same criteria. If any work is subcontracted, the subcontractor shall submit documentation in accordance with paragraph 154.01 (b), to the Contracting Officer for approval 21 calendar days prior to the subcontractor commencing work.

f) Preconstruction Meeting.

The Independent Testing Laboratory shall be present during the technical portion of the preconstruction meeting. Supervisory personnel and the lead field technician shall be in attendance at this meeting.

154.03 Sampling.

DELETE:

Sample and split samples according to AASHTO or other acceptable procedures.

And **INSERT:**

Acceptance samples shall be split into 3 samples according to AASHTO or other acceptable procedures designated by the CO. One of the acceptance sample splits shall be tested by the Independent Testing Laboratory and the other two of the acceptance split sample shall become property of the government. One of the splits shall be marked "BIA", the third shall be marked "Referee". Samples shall be stored in canvas, plastic or metal containers. Paper containers will not be acceptable. All acceptance sample splits shall be delivered to the Agency Roads Office by the Contractor on a weekly basis.

ADD:

(k) Sample Identification System.

Samples for testing shall be consecutively numbered throughout the project. All tests shall be prefixed as shown in the following examples (for specific tests pertaining to this Project refer to the applicable Section):

1.0 Density Tests.

Prefix	Description
OGD	Original ground density
ED	Embankment density
DD	Dike density
SGD	Finished Subgrade density
PBFD	Pipe backfill density
PBD	Pipe bedding density
SBD	Structural backfill density
SSBD	Select subbase density
ABD	Aggregate base density

ACD	Asphalt Concrete density
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Any retests of the above shall be suffixed with alpha letters, e.g., OGD-1 (failed), OGD-1A (failed), OGD-1B (passed).

Embankment tests must indicate elevation of test, either actual elevation from subgrade or distance in feet above OG. Backfill tests must indicate which lift is being tested, 1st, 2nd, etc., to an elevation 12 inches above a structure.

Each item listed above shall be presented to the COR on separate test report sheets.

2.0 Maximum Density-Optimum Moisture Tests.

Prefix	Description
OGMD	Original ground maximum density-optimum moisture
EMD	Embankment maximum density-optimum moisture
ABMD	Aggregate base maximum density-optimum moisture

Moisture density curves for all materials shall be required to have as a minimum four (4) points, two (2) on each side of optimum. Each curve will be identified with a unique laboratory number, material source and usage.

3.0 Sieve Analysis P.I. & Additional Aggregate Tests.

Prefix	Description
ABS	Aggregate base sieve analysis
SSBS	Select subbase sieve analysis
SCS	Structural concrete aggregate sieve analysis
PCS	Prestressed concrete aggregate sieve analysis
CCS	Cover coat aggregate sieve analysis
MAS	Mineral aggregate sieve analysis

P.I. and additional aggregate test results shall be shown on same form as sieve analysis.

4.0 Concrete Tests.

Prefix	Description
SC	Structural concrete sieve analysis
PC	Prestressed concrete sieve analysis

5.0 Asphalt Concrete Tests.

Prefix	Description
AC-1, 2, 3,	Test performed on asphalt concrete mixture to include: Extraction, moisture and gradation for each 500 tons (455 M-t). 1 st a.m. & p.m. sample each day – stability & flow, air voids, VMA, unit weight, rice gravity.
SE-1, 2, 3,	Sand Equivalent – One sample each day
TSR-1, 2,	Tensile Strength Ratio – One sample each day

In addition to test results, each data unit shall contain; date, time sampled and load number of material represented by test results.

6.0 Paving and Liquid Asphalt Tests.

Prefix	Description
PA	Paving grade asphalt
LA	Liquid asphalt
EA	Emulsified asphalt

154.04 Testing.

ADD:

The acceptance split samples shall be tested by the Independent Testing Laboratory. The CO reserves the right to test the second split acceptance samples marked “BIA” and if the results do not conform to those of the Contractor’s test results, then the basis of payment will be on the CO tests. If the Contractor elects to contest the test results of the CO, then a mutually agreed upon “Testing Lab” shall be selected to perform the tests on the third acceptance split samples marked “Referee”.

The Contractor and the CO shall abide by the “Testing Lab’s” results. The Contractor shall bear all costs in running the split samples by the “Testing Lab”.

Results of tests shall be in accordance with AASHTO or industry standards except for the following:

- Sieve analysis – nearest whole %, except the No. 200 sieve which shall be reported to the nearest 0.1%.
- Voids – nearest 0.1%.
- Asphalt and moisture content, retention factor – nearest 0.01%.
- Unit weight – nearest 0.1 lb/ft³.
- Specific gravity – nearest .001unit.
- All compaction tests – nearest 0.1%.
- Compression tests – nearest 10 psi.

The original of all test reports shall be submitted to the COR in accordance with the required time frames.

One copy of all test reports shall be submitted to the Contractor's Superintendent in accordance with the required time frames. **If the test results are not submitted within the required time frames the Contractor shall suspend work on those items of work until the test results are current.**

Indexed binders for testing shall be prepared and submitted to the COR for approval at the preconstruction conference. All test results including summaries shall be incorporated into the binder on a daily basis. The binder shall be kept at the COR's field office.

In addition to the submittal of test reports in accordance with the required time frame, any reports submitted to the COR which are incomplete, illegible or reported on the wrong form will be returned for correction and a **\$50.00 per day charge** will be assessed until they are resubmitted correctly.

154.05 Records.

ADD:

Reporting Test Results

Time constraints for applicable tests and reports submitted to the COR are as follows:

Mix Designs – All Materials.	Design to COR 21 days prior to beginning production.
Proctors – All Materials.	Reports to COR before taking density tests.
Density Tests – All Materials.	Results given to COR at completion of tests. Report to COR the following work day.
All aggregate quality tests such as L.A. Abrasion, Sulphate, etc.	Reports to COR one week prior to hauling.
Special subbase and aggregate base sieve analysis and PI.	Reports to COR one day after samples have been taken.
Cover coat aggregate for surface treatments. Sieve analysis and PI.	Reports to COR 1/2 day after samples have been taken.
Concrete compression, air, slump and temperature. Concrete aggregate sieve analysis (1 per 100 yd ³)	Results of air content, slump and temperature to COR at time of placement with report the following day. Compression test reports one day after test is made. Sieve analysis one day after sample is taken.
Asphalt concrete stability and flow, air voids, V.M.A., asphalt content, moisture content, unit weight, sieve analysis, and sand equivalent.	Report to COR the following work day.
Tensile Strength Ratio, %	Reports to COR within 2 days of sampling.
Straightedge measurements.	Results to COR at completions of tests. Report to COR the following work day.
Profilograph Measurements.	Reports to COR within 14 days after final rolling or compaction is completed.
Complete Asphalt Test Series for paving, cutback, asphalt rubber and emulsified asphalts.	Reports to COR within four (4) working days after sampling.
Emulsified Asphalt – percent of residue.	Reports to COR the following work day after sampling.
Partial paving asphalt tests for paving, cutback, asphalt rubber and emulsified asphalts.	Partial test series reports to COR within two (2) work days of sampling.

154.07 Measurement.

DELETE:

Measure the Section 154 pay items listed in the bid schedule according to Subsection 109.02.

And **INSERT:**

Contractor sampling and testing will not be measured directly but will be considered a subsidiary obligation of the contract.

154.08 Payment.

DELETE:

The accepted quantities will be paid at the contract price per unit of measurement for the Section 154 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Progress payments for Contractor testing lump sum will be paid as follows:

(a) 25 percent of the pay item amount, not to exceed 0.5 percent of the original contract amount, will be paid after the testing facilities are in place, qualified sampling and testing personnel are identified, and the work being tested has started.

(b) Payment for the remaining portion of the pay item amount will be prorated based on the total work completed in Section 154.

Payment may be retained if Government verification testing does not validate the Contractor testing or if it is determined that documentation of sampling and testing does not meet requirements.

And **INSERT:**

Payment will be made under:

Pay Item	Pay Unit
15401-0000 Contractor Testing	LS

SECTION 155 – SCHEDULES FOR CONSTRUCTION CONTRACTS

155.03 General.

DELETE, in the third paragraph:

at least 7 days before the preconstruction conference,

and **INSERT:**

10 days after award of the contract.

DELETE, in the second paragraph, first sentence after “contract activities,”:

for the first 45 days after the notice to proceed

and **INSERT**

after the award.

DELETE, in the second paragraph, second sentence:

Within 7 days after,

and **INSERT:**

at.

DELETE, in the second paragraph, fourth sentence:

except mobilization and traffic control, and **Section 637** work,

DELETE In the fourth paragraph

within 30 days,

and **INSERT**

within 7 days

155.03 Bar Chart Method (BCM).

ADD, in paragraph (a)(3) after “submittals,”:

testing and startup procedures.

155.04 Critical Path Method (CPM).

In paragraph (a)(3) after “submittals,” **INSERT**, “testing and startup procedures”.

155.06 Schedule Updates.

ADD:

Any schedule update showing a completion date beyond the contract time shall be accompanied with a request for a time extension in accordance with **Subsection 108.03**.

155.08 Measurement.

DELETE this subsection and **INSERT**:

The Construction schedule will not be measured directly for payment but will be considered a subsidiary obligation of the Contract.

SECTION 156 – PUBLIC TRAFFIC

156.04 Accommodating Traffic During Work.

ADD:

During construction, the Contractor shall allow residential access at all times. Signs warning drivers of construction zone shall be placed at the beginning and end of construction limits prior to the start of any construction work.

The Traffic Control Plan must be submitted for acceptance, accepted and implemented before any other work can commence at the project site. Prior to the commencement of work and on a weekly basis, the Contractor shall inform the Navajo Division of Transportation of the traffic restrictions.

156.07 Limitations on Construction Operations.

ADD:

- (l) Minimum of one lane of traffic shall be open daily.

ADD the following section:

SECTION 159 – NAVAJO NATION SALES TAX

159.01 Description.

The project is located on the Navajo Nation and is subject to the laws and regulations of the Navajo Nation. Contractors shall make themselves aware of any labor requirements, taxes, fees, licenses, permits or conditions that may be imposed by the Navajo Nation on work performed in the area.

TAX:

A 5% Sales tax will be required on all payments to the contractor. The Navajo Tribal Financial Office will pay on the approved monthly Contractor Invoice. The Contractor will then be invoiced 5% tax on the payments made and will be required to pay that amount to the Navajo Division of Transportation Office.

159.02 Acceptance.

Acceptance shall be based on an invoice from the Navajo Division of Transportation Office and an invoice from the appropriate Tribal Administration Office on the tax.

159.03 Measurement.

Measurement of the Tribal Tax shall be lump sum.

159.04 Payment.

Payment shall be made under:

Pay Item	Pay Unit
15901-0000 Tribal Tax (5.0%)	LS

DIVISION 200 – EARTHWORK

SECTION 204 – EXCAVATION AND EMBANKMENT

204.10 Compaction.

(b) Earth Embankment.

In the last paragraph, second sentence, delete “or other approved test procedures” and insert “, direct transmission method”.

204.13(d) Finishing.

ADD:

Blue-top hubs, 2”x 2” x 6”, shall be set on 100 foot stations along tangents and shall be set on 50 foot increments along curves and transitions. Hubs shall be set on centerline and roadway shoulders.

Vertical tolerance for these hubs will be ± 0.03 feet.

204.14 Disposal of Unsuitable or Excess Material.

DELETE the first sentence and **INSERT:**

All unsuitable or excess material as well as sediment removed from erosion control measures shall be hauled to an approved public land fill as directed by the COR.

204.15 Acceptance.

ADD:

Compaction tests shall be performed on the following:

1. Compacted embankment on each 6 inch lift or each 500 cubic yards whichever is less.
2. Compacted original ground in areas where embankment height is less than 3 feet. Density tests shall be taken for every 500 feet of roadway.

3. Compacted backfill for pipe culverts on each 6 inch lift on each side of culvert. For pipe (CMP) extensions located outside the traveled way three (3) density tests shall be taken located at the bottom, center, and top of the pipe.

In **Table 204-1** for Unclassified borrow, Select borrow and Earth embankment under "Sampling Frequency" for "Compaction", **delete** "1 for each 3500 square yards" and insert "1 for each 500 cubic yards".

In **Table 204-1** for Unclassified borrow, Select borrow and Earth embankment under "Test Methods Specifications" for "Compaction", **delete** "or other approved procedures" and insert "direct transmission method".

204.16 Measurement.

(a) Roadway excavation.

DELETE the first paragraph and **INSERT**:

Roadway excavation will be paid for as the contract quantity shown in the bid schedule. The contract quantity will be adjusted for authorized changes that affect the quantity. If there is evidence that the original contract quantity is incorrect, submit calculations and drawings indicating where the quantity needs to be adjusted.

If the quantity is adjusted, items (1) and (2) of this subsection shall apply when calculating the adjusted volumes.

204.17 Payment

ADD:

Payment will be made under:

Pay Item	Pay Unit
20401-0000 Roadway Exc	CY

SECTION 213 – SURFACE COURSE STABILIZATION

213.01 Description

ADD:

This project includes the application of a Synthetic Polymer or Tree Resin Emulsion to the surface course aggregate. The stabilizer shall be applied per the manufactures recommendations for a 6” penetration depth. The application shall include a topical application after the gravel is bladed and compacted.

The product shall be in accordance with Stabilization Selection Guide for Aggregate and Native Surface Low-Volume Roads, US Forest Service, March 2009.

Trade names for products include SoilTac, Gorilla Snot, or other products as approved by Navajo Division of Transportation.

Contractor shall consult with manufacturer for application rates and methods.

213.12 Payment

ADD:

Payment will be made under:

Pay Item	Pay Unit
30110-1000 Surface Course Stabilization, 6” depth	SY

DIVISION 300 – AGGREGATE AND BASE COURSES

SECTION 301 – UNTREATED AGGREGATE COURSES

301.05 Compacting.

DELETE the following, in the third paragraph, second sentence, after AASHTO T 310:

or other approved test procedures

And **INSERT**:

direct transmission method

301.08 Acceptance.

DELETE all the text of this subsection and **INSERT**:

Untreated aggregate course gradation, construction, and other aggregate quality properties will be accepted under **Subsection 106.04**.

The point of acceptance sampling for testing with the exception of density shall be from the windrow of the roadbed after processing. Gradation, liquid limit, plastic index and density tests shall be performed on each 1000 tons placed or daily if less than 1000 tons.

Density acceptance tests shall be performed on each in-place compacted layer.

301.10 Payment.

ADD:

Payment will be made under:

Pay Item	Pay Unit
30101-1000 Aggregate Base Grading C	TON
30110-0000 Aggregate Surface Course	TON

SECTION 303 – SUBGRADE PREPARATION (ROADWAY RECONDITIONING)

303.10 Payment.

ADD:

Measurement will be made per finished roadway surface. Payment will be made under:

Pay Item	Pay Unit
30301-6000 Subgrade Preparation (Roadway Reconditioning)	SY

DIVISION 550 – BRIDGE CONSTRUCTION

SECTION 554 – REINFORCING STEEL

554.01 Description.

ADD:

This work shall include furnishing and placing, reinforcing bars, dowel bars, and steel welded wire reinforcement as shown on the plans.

Reinforcing and dowel bars shall conform to the requirements of AASHTO M 254 with Type B coating, except that the core material shall conform to the requirements of ASTM A 615, Grade 40. Dowel bars shall conform to the requirements shown in Subsections 501.08 (b), 501.08 (c), 502.04 (d), 502.06 (b) and 709.01. Steel welded wire reinforcement shall conform to the requirements shown in Subsections 502.03 (c) and 709.01.

554.12 Payment.

ADD:

The accepted quantities of reinforcing steel complete in place will be paid for at the contract price per unit of measurement for the pay items that are shown below and in the bid schedule.

Payment will be made under:

Pay Item	Pay Unit
55401-1100 Reinforcing Steel (6x6-W2.9xW2.9 Welded Wire Mesh)	LB
55401-1200 Reinforcing Steel (#4 Bars)	LB

DIVISION 600 – INCIDENTAL CONSTRUCTION

SECTION 601 – MINOR CONCRETE STRUCTURES

601.01 Description

ADD:

The minor concrete structures on this project include a low-flow (wet) crossing. The construction of the low-flow crossings include weep holes in downstream concrete cutoff walls with 1'x1'x1' course aggregate wrapped in burlap – the cost of which shall be considered inclusive in the Concrete bid item cost for the low-flow crossing.

601.03 Concrete Composition.

DELETE the first and second sentences and **INSERT** the following:

“Design and produce concrete mixtures that develop a minimum compressive strength ($f'c$) of 3000 psi” in 28 days which has an air content of $5\% \pm 1\%$ and a slump of not more than 4 inches except that concrete for guardrail posts shall develop a minimum compressive strength of 4000 psi. Twenty one days prior to production the Contractor shall submit for approval three copies of a current Portland cement concrete mix design prepared for a supplier by the Independent Testing Laboratory.

601.07 Acceptance.

ADD:

In Table 601-2, under the heading “Sampling Frequency”, for “Air content” and “Slump”, delete the notation “1 set per 30 yd³ but not less than 1 per day” and insert “Sample each load for slump and air prior to placement.”

Two sets of two cylinders will be tested for compressive strength for each days production except the COR may exclude concrete testing for fencing, thrust blocks, manholes, and concrete monuments and markers.

Minor concrete compressive strength will be accepted as follows:

One continuous concrete production operation, herein defined as a lot, will be accepted or rejected on the basis of acceptance test results. Acceptance samples will be taken in the morning and the afternoon. A sample shall consist of two cylinders each which will be randomly selected

by the COR from each lot. An acceptance test result is the average strength of the cylinder samples.

The quantity of the lot will be determined based on batch tickets and converted to the appropriate pay unit.

Acceptance of the lot with regard to compressive strength will be made at the full contract price provided no acceptance test result is below the specified f'_c . If any acceptance test result is below the specified f'_c , the specification concrete will be evaluated in accordance with **Table 601-3** of the Special Contract Requirements. If the average of the 28-day acceptance test results does not meet the minimum limit shown under the 1.00 pay factor, the CO will determine the detrimental effect of the non-specification concrete. If any or all of the lot is allowed to remain in place it will be accepted at a reduced pay factor in accordance with **Table 601-3** and the following paragraphs, or the Contractor may elect to remove and replace it with specification concrete.

The pay factor for concrete which is allowed to remain in place when it is determined to be outside the 0.85 pay factor limits for compressive strength will be 0.70.

TABLE 601-3	
Pay Factor Schedule for Compressive Strength at 28 Days (Lots Represented by one sample)	
Pay Factor	Average of Test Results
1.00	Not less than 1.00 f'_c
0.95	Not less than 0.97 f'_c
0.85	Not less than 0.94 f'_c
0.70	Less than 0.94 f'_c

All batches must be sampled to be accepted unless waived as noted above.

601.09 Payment

ADD:

The accepted quantities of minor concrete complete in place will be paid for at the contract price per unit of measurement adjusted according to Subsection 601.07 for the pay items that are shown below and in the bid schedule.

If concrete is subject to a price reduction, the following procedures will apply:

(a) For concrete bid by the unit (i.e. cubic yard)

$$PR = C \times Q \times BP \times (1 - PF)$$

Where: PR = Price reduction for the lot in dollars.

C = A cost factor representing the estimated concrete portion of the bid item. If no "C" factor is shown in the plans or Special Contract Requirements, it shall be assumed to be 1.00.

Q = Quantity of the lot involved in cubic yards, square yards or linear feet.

BP = Bid price per unit.

PF = Pay factor (1.00, 0.95, 0.85, or 0.70).

(b) For concrete included in a lump sum or each:

$$PR = C \times Q \times LS \times (1 - PF)/T$$

Where: T = Total cubic yards of concrete in the item subject to acceptance from the pay factor schedule.

LS = Lump sum bid price or bid price for Each.

Other symbols are the same as **(a)**

Payment will be made under:

Pay Item	Pay Unit
60101-0000 Concrete	CY

SECTION 635 – TEMPORARY TRAFFIC CONTROL

635.01 Description

DELETE the following from the first sentence:

as ordered

635.04 General.

ADD:

Three copies of a traffic control plan that is in accordance with the MUTCD will be submitted for each item impacting traffic 10 days after award of this contract for review. *The plan will include the maximum spacing distance that the Contractor is proposing to use when placing channeling devices.* If the traffic control plan does not conform with the MUTCD requirements because the Contractor changed his operations and/or special or hazardous conditions arise, the COR shall direct the Contractor to revise his plan and temporary traffic control devices and services immediately to conform with the MUTCD.

635.24 Measurement.

DELETE this subsection and **INSERT:**

Temporary traffic control will be measured by the lump sum and no measurement for payment will be made for furnishing, installing, and maintaining all traffic control devices and services required for the control and protection of traffic.

635.25 Payment.

DELETE:

(b) An additional 25 percent of the pay item amount will be paid following completion of 50 percent of the contract amount.

ADD:

Payment will be made under:

Pay Item	Pay Unit
63501-0000 Temporary Traffic Control	LS

DIVISION 700 – MATERIAL

SECTION 701 – CEMENT

701.01 Hydraulic Cement

(a) Portland Cement.

DELETE:

Conform to AASHTO M 85.

And INSERT:

Conform to AASHTO M85, type II, and the low-alkali cement criteria of Table 2-Optional Chemical Requirements.

SECTION 703 – AGGREGATE

703.02 Coarse Aggregate for Concrete.

ADD:

The adherent coating on the aggregate shall not exceed 1%. The adherent coating is the difference between the amount of material passing the No. 200 sieve between dry sieving and washing on the minus No. 4.

Provide aggregates that meets the Size No. 57 of AASHTO M 43 for structural concrete (Section 552) and Size No. 57 or Size No. 467 for minor concrete (Section 601).

SPECIFICATIONS FOR SURFACE COURSE

1. Physical Characteristics:

- A. Furnish hard, durable particles or fragments of crushed stone or gravel conforming to the size and quality requirements for crushed aggregate material normally used locally in the construction and maintenance of roads by federal or state agencies. Furnish crushed aggregate uniformly graded from course to fine and free of organic matter, lumps, balls of clay or other deleterious materials.
- B. Graduation shall be as follows:
 - Passing 1" sieve -100%
 - Passing ½ sieve - 70-80%
 - Passing #4 sieve - 40-50%
 - Passing #10 sieve - 25-40%
 - Passing #200 sieve - 8-25%
- C. Liquid limit, AASHTO T89, shall be 35% max as determined by testing guidelines.
- D. Plasticity index shall be at least 10
- E. Los Angeles abrasion, AASHTO T96, loss shall be 50% or less as determined by the testing guidelines.

- F. The course aggregate shall have a soundness loss of 12% or less when tested in accordance with AASHTO T104 using magnesium sulfate solution and testing duration of five (5) cycles.
- G. Sieve analysis of the aggregate shall be as determined by AASHTO T11 and AASHTO T27.
- H. Testing methods shall be in accordance with the latest published edition of AASHTO guidelines.
- I. Fifty percent (50) or more of the material shall have two (2) fractured faces per ASTM D 5821

Bidders shall identify the pit location. Bidders shall submit certified test results for the surface course material with the sealed bid. . Test shall be performed by an independent laboratory. The laboratory shall be certified by the State of Arizona/New Mexico. A certification shall be submitted verifying that the lab is certified and shall be dated not more than one (1) year prior to the submission of the bid.

2. DELIVERY:

- A. Surface-course materials shall be delivered by the contractor on site in a uniform window within a maximum total deviation over the length of the project of 1% of the total tonnage required, to be achieved by a Motor Grader.
- C. Contractor shall select the route to deliver the Surface-course materials to the project site; contractor shall advise self of the weight limits imposed on the route selected and shall not exceed the same. Compliance shall be shown by delivery to the Navajo DOT of **weight tickets taken on state certified scales, a copy of said certification not in excess of one (1) year old must also be provided.**
 - Surface-course delivery will be specified at a later time
 - Random testing of Surface-course material will be completed by Navajo DOT
- C. Delivery shall be made at a rate of not less than five hundred tons (500) per day from receipt by the contractor of a purchase order. If delivery is not made under the specified contract, a penalty fee shall be assessed to the contractor at the rate of the price of Surface-course times 500 tons per day until actual delivery of the minimum quantity on site.
- D. Contractor shall be responsible for the dust abatement and safety precautions as required

- E. Contractor shall assure access through existing turnouts and driveways to all properties adjacent to the project except as otherwise directed by Navajo DOT.
- F. Contractor shall deliver the materials to the designated project site within forty-eight (48) hours of receipt of the Navajo Nation Purchase Order or at the beginning date of the project. Failure by the contractor to deliver shall make the contract void at Navajo DOT's option. Navajo DOT may extend the delivery date at its option in a written form if it deems such delay to be in the best interest of the Navajo Nation. If the delivery contract is voided by the Navajo Nation, it may, at its option, re-bid the contract, or substitute performance by the next qualified bidder on the original RFP, or Navajo DOT may accept late delivery and impose the penalty set forth in paragraph 2. C

3. PAYMENT:

- A. Receipt of tests showing compliance with specifications cited in paragraph 1 and weight tickets showing loads lawful through the entire delivery route with scale certification as indicated in paragraph 2 shall be conditions precedent to any obligation for payment by Navajo DOT.

703.05 Subbase and Base Course Aggregate.

(a) General.

(1) Los Angeles abrasion, AASHTO T 96

DELETE:

50 percent max.

And INSERT:

40 percent max

DELETE:

(2) Soundness of aggregate using sodium sulfate, 12 percent loss max.
AASHTO T 104 (5 cycles)

(5) Fractured Faces, ASTM D5821

DELETE:

50 percent min

And **INSERT** the following:

Not Less than 65% by weight of the particles retained on the No. 4 (4.75 mm) sieve shall have at least one **manufactured** face. Minimum sample size shall be 25 pounds (kg).

ADD:

The use of Recycled Asphalt Pavement (RAP) in the aggregate base course may be acceptable but a request to use the material must be submitted for review at the pre-construction meeting.

(b) Subbase or base aggregate.

(1) Gradation

DELETE:

“Table 703-2” and insert “In the Special Contract Requirements”.

ADD:

(3) Plasticity Index, AASHTO T 90, 6 max.

(c) Surface course aggregate.

(1) Gradation and plasticity index, AASHTO T 90, **Delete** “Table 703-3” and insert the following: The Gradation will be designated in the Special Contract Requirements and the Plasticity Index shall be non-plastic.

(2) fractured faces shall be not less than 85% by weight of the particles retained on the No. 4 (4.75 mm) sieve and shall have at least one **manufactured** face.

--- END OF SPECIAL CONTRACT REQUIREMENTS ---