STATE OF ALASKA ITB NUMBER 2517N023

AMENDMENT NUMBER 1

Department of Transportation &
Public Facilities
2301 Peger Road
Fairbanks, AK 99709

THIS IS NOT AN ORDER **DATE AMENDMENT ISSUED: 3/17/2017**

ITB TITLE: Crushed Aggregate, D-1 Modified, Tok Area, Federally Funded

ITB OPENING DATE AND TIME: March 30, 2017

1. **Remove and Replace Scope of Work with the attached Revised Scope of Work.**
2. **Remove and Replace Bid Schedule with Revised Bid Schedule.**
3. **Add Statewide Material Site Inventory (Northway Junction Pit, 10 Pages) for new site.**

Eric Johnson
Procurement Officer
Phone: (907) 451-5102
TDD: (907) 451-2363
FAX: (907) 451-5238

This is a MANDATORY return amendment. You must sign & return this document with your bid in order to be declared responsive.

_____ _____
Contractors Signature Date

SECTION 101
DEFINITIONS AND TERMS

101-1.03 DEFINITIONS.

ENGINEER. The authorized representative of the Contracting Officer who is responsible for administrating the Contract shall be Henry Cole; phone 907-451-2223 or email Henry.Cole@Alaska.gov. This project takes place in the Tok Maintenance and Operations District; the Superintendent of which is Dennis Bishop; phone 907-883-5129, or email Dennis.Bishop@Alaska.gov.

SECTION 104
SCOPE OF WORK

104-1.01 INTENT OF CONTRACT. The intent of the Contract is to produce and stockpile processed aggregate. The site listed below is the location of the final stockpile only; this does not indicate the source or the quality of the material.

The Contractor must: acquire the material sources and all necessary permits; process and stockpile the required aggregate; and pay all associated fees and royalties. Proof of royalty payments shall be required prior to final payment under this Contract. At least seven days prior to mobilization the Contractor shall submit documentation indicating that the material source meets the quality specifications per Section 703 of the Contract.

The location and quantity required are as follows:

TABLE 104-1

Material Site No.	Location	Quantity (CY)	Royalty	Completion Date
62-1-015-5	Alaska Highway, mile 1281.5	10,000	$0	6/15/2017
46-2-033-5	Tok Cutoff Highway, mile 101	10,000	$0	7/15/2017
785-019-2	Taylor Highway, mile 43	10,000	$2,500	8/15/2017
62-1-012-5*	Alaska Highway, mile 1264	10,000	N/A*	9/15/2017

*This is a stockpile site only. The material must be mined elsewhere and trucked to this location. The royalty owed will be dependent on the mining location and material source.

The Contractor shall take all necessary precautions not to contaminate the materials. Final gradations and quantity measurements for acceptance and payment will be taken at the final location of the completed stockpile.

All stockpiles shall be stacked so that they are easily accessible on all sides with heavy hauling equipment, and, if located in a State Material Site, situated so as not to impact future mining operations in the site.

Geotechnical reports for State material sites may be available from the Engineer. State material reports and geotechnical data are for informational purposes only, and may not accurately represent the conditions found onsite. Any information provided should not substitute for personal investigation, research and judgment of the bidders.

The bidder is expected to examine carefully the sites of the proposed work and all contract documents before submitting a bid. The submission of a bid shall be considered prima facie evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and the requirements of the Contract.

SECTION 105
CONTROL OF WORK

105-1.01 AUTHORITY OF THE ENGINEER. The Engineer has immediate charge of the engineering details of the project and is responsible for Contract administration. The Engineer has authority to reject defective material and suspend work being performed improperly. The Engineer has authority to accept completed work, issue Directives, issue Interim Work Authorizations, issue Change Orders, and recommend Contract payments.
The Engineer will decide all questions about the quality and acceptability of the materials furnished and the work performed by the Contractor, the Contractor's rate of progress, Contract interpretation and all other questions relating to Contract performance.

The Engineer has authority to suspend work for reasons listed under Subsection 108-1.06. If the suspension is to protect workers or the public from imminent harm, the Engineer may orally order the suspension of work. Following an oral order of suspension, the Engineer will promptly give written notice of suspension. In other circumstances, the Engineer will give the Contractor written notice of suspension before suspension of work. A notice of suspension will state the defects or reasons for a suspension, the corrective actions required to stop suspension, and the time allowed to complete corrective actions. If the Contractor fails to take the corrective action within the specified time, the Engineer may:

1. Suspend the work until it is corrected; and
2. Employ others to correct the condition and deduct the cost from the Contract amount.

The Engineer may, at reasonable times, inspect any part of the plant or place of business of the Contractor or any subcontractor that is related to Contract performance, including private or commercial plants, shops, offices, or other places of business.

The Engineer may audit all books and records related to performance of the Contract, whether kept by the Contractor or a subcontractor.

105-1.03 CONFORMITY WITH PLANS AND SPECIFICATIONS. Work performed and materials furnished shall conform to the Specifications and approved Mining Plan and be within specified tolerances. When tolerances are not specified, the Engineer will determine the limits allowed in each case.

All work or material not conforming to the Specifications and approved Mining Plan is considered unacceptable unless the Engineer finds that reasonably acceptable work has been produced. In this event, the Engineer may allow non-conforming work or material to remain in place, but at a reduced price. The Engineer will document the basis of acceptance and payment by Change Order.

The failure of the Department to strictly enforce the Contract in one or more instances does not waive its right to do so in other or future instances.

If the Contractor fails to promptly correct, remove, or replace unacceptable or unauthorized work as ordered by the Engineer, the Engineer may employ others to remedy or remove and replace the work and will deduct the cost from the Contract payment.

SECTION 106
CONTROL OF MATERIAL

106-1.02 MATERIAL SOURCES.

1. General. The Contractor shall:
    a. produce a sufficient quantity of materials meeting the specifications to complete the project;
    b. As a subsidiary cost: clear and grub, strip, drill and blast, excavate, crush, sort, blend, screen, wash, stockpile, haul, and rehandle material as needed to produce and deliver the specified product;
    c. determine the type of equipment and methods to be used;
    d. expect variations in material quality within the deposits, and procure material only from acceptable portions of the deposit, regardless of source ownership; and

e. prevent erosion, sedimentation, and pollution within a materials source.

The Contractor agrees that:

a. the costs to explore and develop material sources, including all production effort, are subsidiary to the cost of providing the specified material;
b. the Engineer may order the Contractor to procure material only from certain portions of the source and may reject material from other portions of the source that does not conform to the specifications; and
c. all material required may not be procurable from any one source and the Contractor may need to change between sources. That contingency is to be factored into the unit bid price for the Contract Item.

2. Inspection and Acceptance. The Contractor shall perform sampling and testing during materials processing and placement in accordance with its Process Control Plan (Subsection 106-1.03-1) and shall obtain acceptable material samples from locations designated within the source.

The Department will sample and test materials to determine the quality of the source, at its expense, as part of its Acceptance Testing (Subsection 106-1.03.2). The Department will reject materials when the samples do not meet specifications. The Department may reject a proposed materials site when samples do not meet specifications.

3. Awareness Training. The operator of the Contractor's sand and gravel surface mine or other similar materials source shall provide Site-Specific Hazard Awareness Training in compliance with 30 CFR 46.11 for all the Engineer's personnel before beginning operations. All other workers shall be given training in compliance with 30 CFR 46 before exposure to mine hazards. The training must be offered at each surface mine that will be used to supply processed aggregates. A qualified person must provide the training. The training shall be in accordance with the operator's written training plan approved by the Mine Safety and Health Administration, covering the following items:

a. Site-specific health and safety risks;
b. Recognition and avoidance of hazards;
c. Restricted areas;
d. Warning and evacuation signals;
e. Evacuation and emergency procedures;
f. Other special safety procedures; and
g. A site tour.

The Contractor shall require the Engineer's personnel to sign the Visitor's Log Book upon completion of the training to indicate that training was provided. Training is a subsidiary cost.

4. Type of Sources. The location(s) identified in Section 104-1.01 are to be the site of the finished stockpile only and do not specify the source or quality of the material to be produced. The Contractor shall supply the required material from one or more of the following types of sources:

a. Department Furnished Material Sites. The Contractor shall obtain approval from the Engineer prior to any construction activities. Existing stockpiles of material in State sites are not available to the Contractor without prior approval from the Engineer. All stockpiled aggregate including rejected material is property of the State and shall be handled or stockpiled as described in the Contractor's approved Mining Plan, unless directed otherwise by the Engineer. At no time does the Contractor have any ownership of material, including reject, produced under this Contract. The materials in this site are not available for any use other than required by this Contract, unless approved by the Engineer. The Contractor shall be responsible for paying any mineral royalty due, as indicated in Section 104-1.01. Geotechnical information may be available, but should not be considered to be authoritative. All work and development in a Department-Furnished material site shall be in line with the Department's existing site-specific Mining Plan.

b. Contractor-Furnished Sources. The Contractor is encouraged to use State furnished material sites or work within an approved Right of Way for both mining and for the final stockpile locations. The use of private sources for mining and stockpile storage will require the Contractor to make all necessary agreements (See Subsection 106-1.02.5). When the Contractor elects to use a material

site not furnished by the Department, including State-owned land not under the Department's control, the Contractor shall:

1) Acquire the necessary rights and permits to obtain material;
2) Pay as subsidiary costs all related costs to obtain and use material from the source, including, but not limited to, permit fees, mineral royalties and associated hauling costs;
3) Be solely responsible for the quality and quantity of material; and
4) Obtain all necessary rights, permits and plan approvals before clearing or disturbing the ground in the material source. The Contractor shall certify in writing to the Engineer that all permits and clearances relating to the use of the material source have been obtained prior to any work in the material source.

No price adjustment or other compensation will be made for any costs, including increased length of haul, if the Contractor:

1) Chooses to change material sources for any reason;
2) Is unable to produce a sufficient quality or quantity of materials from Contractor-Furnished sources; or
3) Encounters unexpected, unforeseen or unusual conditions within a Contractor-Furnished source.

5. Rights, Permits and Plan Approvals for Material Sources. Before disturbing the site of a material source, the Contractor shall acquire, pay for and provide to the Engineer all necessary rights, permits, and plan approvals indicated in this Subsection and elsewhere in this Contract. For each material site, the Contractor shall:

   a. Submit for the Engineer's comment and approval, no fewer than seven (7) days prior to mobilization, a mining and reclamation plan (MRP). During development of each MRP, the Contractor shall consider future activities in the material site and shall maintain access to usable material. The MRP shall include:
      (1) Approval from the landowner (if a Contractor-Furnished source, see Subsection 106-1.02-4-b-2);
      (2) A process control plan (see Subsection 106-1.03-1);
      (3) Plan and cross-sectional views of the site (this includes both the mining and disposal areas);
      (4) Applicable boundary lines, property lines and buffer zones;
      (5) Areas and Depths to be developed (note, development of Department-Furnished sources shall be in accordance with the Department's Mining Plan for that site);
      (6) Locations of access roads, stripping, sorting, waste piles, crushing and plant sites, stockpile sites (including reject material), buffer zones, drainage features, erosion and pollution control features;
      (7) Condition the Contractor will leave the site in after the materials extraction is completed, including reseeding if necessary;
      (8) A Construction General Permit-compliant Storm Water Pollution Prevention Plan, if required by Section 641; and
      (9) Other information as required by any and all attachments included with bid (ie BLM Mining Plan Review checklist, DOT MRP and/or any site-specific stipulations that may be included).
   b. If the material is to be stockpiled in a Contractor-Furnished site or otherwise on private property, the Contractor shall supply the following information in addition to the MRP:
      (1) A notarized agreement with the property owner allowing the State full and unfettered access to the stockpile until 12/31/2020. The owner shall certify that they have the authority to sell mineral materials from the property, and shall acknowledge the Department's ownership of the stockpiled material;
      (2) A property map of the material site identifying property boundaries, access routes and stockpile location.

106-1.03 TESTING AND ACCEPTANCE. Materials are subject to inspection and testing by the Department at any time before, during or after their incorporation into the stockpile. The Contractor shall remove and replace unacceptable material according to Subsection 105-1.03.

1. Quality Control. The Contractor is responsible for the quality of materials produced under this Contract. Quality Control is process control, and includes all activities needed to ensure that the product meets Contract specifications. Quality control work is subsidiary to the applicable pay items. The Contractor shall perform quality control as follows:
   a. Develop and submit a Process Control plan as part of the MRP (Subsection 106-1.02-5), including testing and frequency, personnel qualifications, equipment descriptions and criteria for corrective actions.
   b. Sample material during production and perform quality control testing, as needed, to ensure materials produced to Contract Specifications. Document all quality control testing and make the results available to the Engineer within three days of sampling.
   c. Due to the nature of this work, it is recommended that the Contractor maintain an on-site materials lab and a WAQTC-certified technician to perform process control. If testing will be done off-site, material processing may need to be suspended pending receipt of results.
2. Acceptance Testing. The Department reserves the right to conduct its own testing of the acceptability of the materials. This testing will be performed at the Department's expense, and copies of the test results may be furnished to the Contractor upon request. The Engineer may elect, at his discretion, to retest materials that have failed the Department's acceptance testing.

3. Minimum Testing Requirements. Tests shall be performed at minimum according to Table 106-1 below. Failing test results not in substantial conformance may be the basis of the Engineer's rejection of the represented material, and no payment will be made for unacceptable material, as outlined in Subsection 105-1.03. The Contractor shall produce and test additional material until the Contract quantity has been fully accepted and completed. Failing test results shall not be a basis for any time extension or modification to Contract requirements.

TABLE 106-1

Item	Test	Test Number	Specifications	Frequency (min.)
Crushed/ Stockpiled Aggregate	Process Control Gradation & Fracture, by Contractor	AASHTO T27/T11	Refer to 703	1/Source, 1/1,000 C.Y.
	Acceptance, by Engineer	AASHTO T27/T11	Refer to 703	1/ Source, 1/10,000 C.Y.

SECTION 107
LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107-1.07 ARCHAEOLOGICAL OR HISTORICAL DISCOVERIES. If the Contractor's operation encounters prehistoric artifacts, burials, remains of dwellings, paleontological remains, shell heaps, land or sea mammal bones, tusks or other items potentially of historical significance, the Contractor shall:

1. Immediately cease operations at the site of the find;
2. Immediately notify the Engineer of the find; and
3. Not disturb or remove the finds or perform any further operations at the site until directed by the Engineer.

The Engineer will issue an appropriate Change Order if operations are to be suspended, or extra work is needed to protect the find.

107-1.10 USE OF EXPLOSIVES. The Contractor shall obey all laws, regulations and permits applicable to using, handling, loading, transporting, or storing explosives. When using explosives, the Contractor shall take utmost care not to endanger life, property, new construction, or existing portions of the project and facilities that are to remain in place after the project is complete.

The Contractor shall provide notice to property owners, the traveling public, and utility companies in the vicinity before using explosives. The Contractor shall provide notice to the Federal Aviation Administration when required by law. The Contractor shall notify police and fire authorities in the vicinity before transporting or using explosives. The Contractor shall provide notice sufficiently in advance to enable all potentially affected parties to take whatever steps they may deem necessary to protect themselves and their property from injury or damage.

The Contractor is liable for all property damage, injury, or death resulting from the use of explosives on the project. The Contractor shall indemnify, hold harmless, and defend the State of Alaska from all claims related to the use of explosives on the project, including claims from government agencies alleging that explosives were handled, loaded, transported, used, or stored improperly.

107-1.11 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE.

1. Restoring Areas. Areas used by the Contractor, including haul routes, shall be restored to their original condition after the Contractor's operations are completed. The original condition of an area shall be determined as follows: Prior to commencement of operations, the Engineer and the Contractor shall inspect each area and haul route that will be used by the Contractor and take photographs to document their condition. After construction operations are completed, the condition of each area and haul route will be compared to the earlier photographs. Prior to demobilization the Contractor shall repair damages attributed to its operations. The Contractor agrees that all costs associated with repairs shall be subsidiary to other items of work and will not be paid for directly.

2. Material Disposal Sites. Offsite disposal areas may be at locations of the Contractor's choice, provided the Contractor obtains written permission from the land owner for such disposal and a waiver of all claims against the State for any damage to such land which may result therefrom, together with all permits required by law for such disposal. A copy of such permission, waiver of claims, and permits shall be filed with the Engineer before commencing work on private property. The Contractor's selected disposal sites shall also be inspected and approved by the Engineer prior to use of the sites.

3. Property Marks. The Contractor shall:
   a. Be responsible for and protect from disturbance all land monuments and property marks until the Engineer has approved the witnessing or otherwise referenced their locations; and
   b. Not move such monuments or marks without the Engineer's approval.

4. Damage to property. The Contractor shall:
   a. Be responsible for all damage to public or private property resulting from any act, omission, neglect, or misconduct in the manner or method of executing the work;
   b. Be responsible for all damage to public or private property resulting from defective work or materials at any time, before, during, or after project completion; and
   c. Restore all such damaged property to a condition similar or equal to that existing before the damage occurred, at no additional cost to the Department.

5. Protection of Natural Resources. The Contractor shall:
   a. Conduct work in a manner that minimizes disturbance to and protects natural resources in compliance with all federal, state, and local laws and regulations;
   b. When working near designated wetlands, as defined by the Corps of Engineers, place no fill, nor operate equipment outside the permitted area;
   c. When working in or near designated anadromous fish streams, as defined by AS 41.14.840 and AS 41.14.870, place no fill or dredge material, nor operate equipment, within or on the banks of the stream (including fording) except as permitted by a Alaska Department of Fish and Game Fish Habitat Permit issued for the project;
   d. Upon completion, all disturbed slopes, cuts, and banked material shall be flattened to a slope no steeper than a 2:1 or as specified in the Material Sales Agreement governing use of the site. No vertical cuts or slopes shall remain;
   e. Existing approaches to material sites and recreational trails shall not be disturbed or obstructed at any time.

6. Hazardous materials. Hazardous materials include but are not limited to petroleum products, oils, solvents, paints, lead based paints, asbestos, and chemicals that are toxic, corrosive, explosive, or flammable. Except as otherwise specified in this Contract, the Contractor shall:
   a. Not excavate, nor use for fill, any material at any site suspected of or found to contain hazardous materials or petroleum fuels;
   b. Not raze and remove, or dispose of structures that contain asbestos or lead-based paints;

c. Not stockpile, nor dispose of, any material at any site suspected of or found to contain hazardous materials or petroleum;
d. Report immediately to the Engineer any known or suspected hazardous material discovered, exposed, or released into the air, ground, or water during construction of the project;
e. Report any containment, cleanup, or restoration activities anticipated or performed as a result of such release or discovery;

7. Protected areas. The Contractor shall not use land from any park, recreation area, wildlife or waterfowl refuge, or any historical site located inside or outside of the project limits for excess fill disposal, staging activities, equipment or material storage, or for any other purposes unless permitted by the Contract or unless all permits and clearances necessary for such work have been obtained by the Contractor.

8. Solid waste. The Contractor shall remove all debris, trash, and other solid waste from the project site as soon as possible and in accordance with the Alaska Department of Environmental Conservation Solid Waste Program.

SECTION 108
PROSECUTION AND PROGRESS

108-1.03 PROSECUTION AND PROGRESS. The Contractor shall meet with the Engineer at either the district maintenance and operations station for which the Contract is for (see Subsection 101-1.03 Engineer) or schedule a teleconference with the Engineer 14 days before mobilization to the project site. The Contractor shall submit the following documents to the Engineer at least three working days before the referenced meeting:

1. A progress schedule in a format acceptable to the Engineer, showing the order in which the Contractor proposes to carry out the work and the contemplated dates on which the Contractor and the subcontractor will start and finish each of the salient features of the work, including any scheduled periods of shutdown. The schedule shall indicate the anticipated hours of operation and any anticipated periods of multiple-shift work;
2. A letter designating the Contractor's Project Superintendent, defining that person's responsibility and authority, and providing a specimen signature;
3. A Mining and Reclamation Plan, as outlined in Subsection 106-1.02-5;
4. A SWPPP, if one is required by Subsection 641, and designated field representatives; and
5. A Process Control Plan, as outlined in Subsection 106-1.03-1.

108-1.07 FAILURE TO COMPLETE ON TIME. For each calendar day that the work is not substantially complete after the completion date has passed, the Engineer shall deduct the full daily charge corresponding to the original Contract amount shown in Table 108-1 from the remaining value of the Contract.

If no money is due the Contractor, the Department may recover these sums from the Contractor, the Surety or both. These are Liquidated Damages, and not penalties. These charges shall reimburse the Department for additional expenses incurred due to the Contractor's failure to complete the work within the time specified.

TABLE 108-1:
DAILY CHARGE FOR LIQUIDATED DAMAGES
FOR EACH CALENDAR DAY OF DELAY

Original Contract Amount		Daily charge
From More Than:	Up to and Including:	
$0	$100,000	$300
$100,000	$500,000	$550
$500,000	$1,000,000	$750
$1,000,000	$2,000,000	$1,000
$2,000,000	$5,000,000	$1,500
$5,000,000	----	$2,500

Permitting the Contractor to continue work after the completion date has passed does not waive the Department's right to collected Liquidated Damages under this section.

SECTION 305
STOCKPILED MATERIALS

305-1.01 DESCRIPTION. Produce and stockpile the specified material at the designated stockpile locations shown in Subsection 104-1.01.

305-2.01 MATERIALS. Meet the materials requirements of Subsection 703-2.03.

305-3.01 CONSTRUCTION REQUIREMENTS. Clear and grub the stockpile sites and dispose of all trees, stumps, brush and debris in accordance with the approved Mining and Reclamation Plan. Make the floor of each stockpile site flat and uniform in cross-section, compacted and well-drained. Construct the stockpiles to occupy the smallest feasible areas.

Avoid contamination and segregation of the various sizes of aggregate in each stockpile. Do not push up stockpiled material with a track-type dozer; only rubber-tired vehicles are allowed on the stockpile. Make the completed stockpiles neat and generally tent shaped in form with a single ridge. Make the height or depth of the piles not less than 20 feet on average, with side slopes 1-1/2:1 or steeper.

The Contractor, in the presence of the Engineer, shall verify material site boundaries, archaeological sites, research areas, crushing location, waste areas and review of the reclamation plan prior to any work. All expenses required for above work to produce the materials specified in this Contract shall be subsidiary to other items of work.

305-4.01 METHOD OF MEASURMENT. Stockpiled quantities shall be measured at the direction of the Engineer, by one of the following methods:

1. Average End Area, by the Engineer;
2. Three-Dimensional, by the Engineer;
3. The Engineer, at his sole discretion, may require the Contractor to conduct a final measurement under the supervision of a registered Professional Land Surveyor, at no additional cost to the Department. A stamped and signed volume report will be required, along with a description of the method used.

No allowance will be made for settlement, swell or shrinkage. If the Contractor chooses to demobilize off of the project site prior to final measurements being taken by the Department the Contractor is responsible for assuring that the quantity and quality of material produced meets those required by the Contract.

305-5.01 BASIS OF PAYMENT. All work involved in preparing the stockpile site is subsidiary.

Payment will be made under:

Pay Item	Location	Item Description	Quantity (CY)
1	Alaska Hwy, mile 1281.5	Crushed Aggregate D-1 Modified	10,000
2	Tok Cutoff Hwy, mile 101	Crushed Aggregate D-1 Modified	10,000
3	Taylor Hwy, mile 43	Crushed Aggregate D-1 Modified	10,000
4	Alaska Highway, mile 1264	Crushed Aggregate D-1 Modified	10,000

SECTION 641
EROSION, SEDIMENT, AND POLLUTION CONTROL

641-1.01 DESCRIPTION. This Project is not anticipated to require a SWPPP, as all work in the material site(s) should be planned so that no runoff may discharge to Waters of the U.S. Appropriate Best Management Practices (BMPs) should be employed to ensure that no discharge is possible. In the event that runoff discharges occur, the Contractor shall take immediate action to stop them, and shall notify the Engineer. In the event that runoff cannot be prevented from leaving the site, the Engineer may require the Contractor to design and implement a SWPPP under the Alaska Construction General Permit.

703-2.03 AGGREGATE FOR BASE AND SURFACE COURSE. Crushed stone or crushed gravel, consisting of sound, tough, durable pebbles or rock fragments of uniform quality; free from clay balls, vegetable matter or other deleterious matters. Meet the following requirements:

TABLE 703-1

PROPERTY	THRESHOLD	TEST METHOD
L.A. Wear	45% max	AASHTO T96
Degradation Value	45 min	ATM 313
Fracture %	70% min	ATM 305
Liquid Limit	35 max	ATM 204
Plastic Index	10 max	ATM 205
Sodium Sulfate Loss	9 max (5 cycle)	AASHTO T104

Meet the following gradation(s), as determined by AASHTO T27/T11:

TABLE 703-2

Pay Item No.	1, 2, 3
	Percent Passing by Weight
Sieve	CA D-1 Modified
3/4 in.	100
1/2 in.	63 – 89
3/8 in.	54 – 76
No. 4	36 – 56
No. 8	18 – 38
No. 16	12 – 30
No. 50	4 – 18
No. 200	3 – 8

ITB 2517N023

Crushed Aggregate, D-1 Modified, Tok Area, Federally Funded

Pay Item	Location	Item Description	Quantity	Date Required	Unit of Measure	Unit Price	Extended Price
1	Mile 1281.5 Alaska Highway	Crushed Aggregate, D-1 Modified	10,000	6/15/2017	Cubic Yard	$_____	$_____
2	Mile 101, Tok Cutoff	Crushed Aggregate, D-1 Modified	10,000	7/15/2017	Cubic Yard	$_____	$_____
3	Mile 43, Taylor Highway	Crushed Aggregate, D-1 Modified	10,000	8/15/2017	Cubic Yard	$_____	$_____
4	Mile 1264, Alaska Highway	Crushed Aggregate, D-1 Modified	10,000	8/15/2017	Cubic Yard	$_____	$_____
					Total Basic Bid		**$_____**

STATEWIDE MATERIAL SITE INVENTORY

MATERIAL SITE INSPECTION REPORT

Federal Project No. STP-000S(530)
AKSAS Project No. 76174

ALASKA HIGHWAY

MS 62-1-012-5
Northway Junction Pit

September 14, 2007

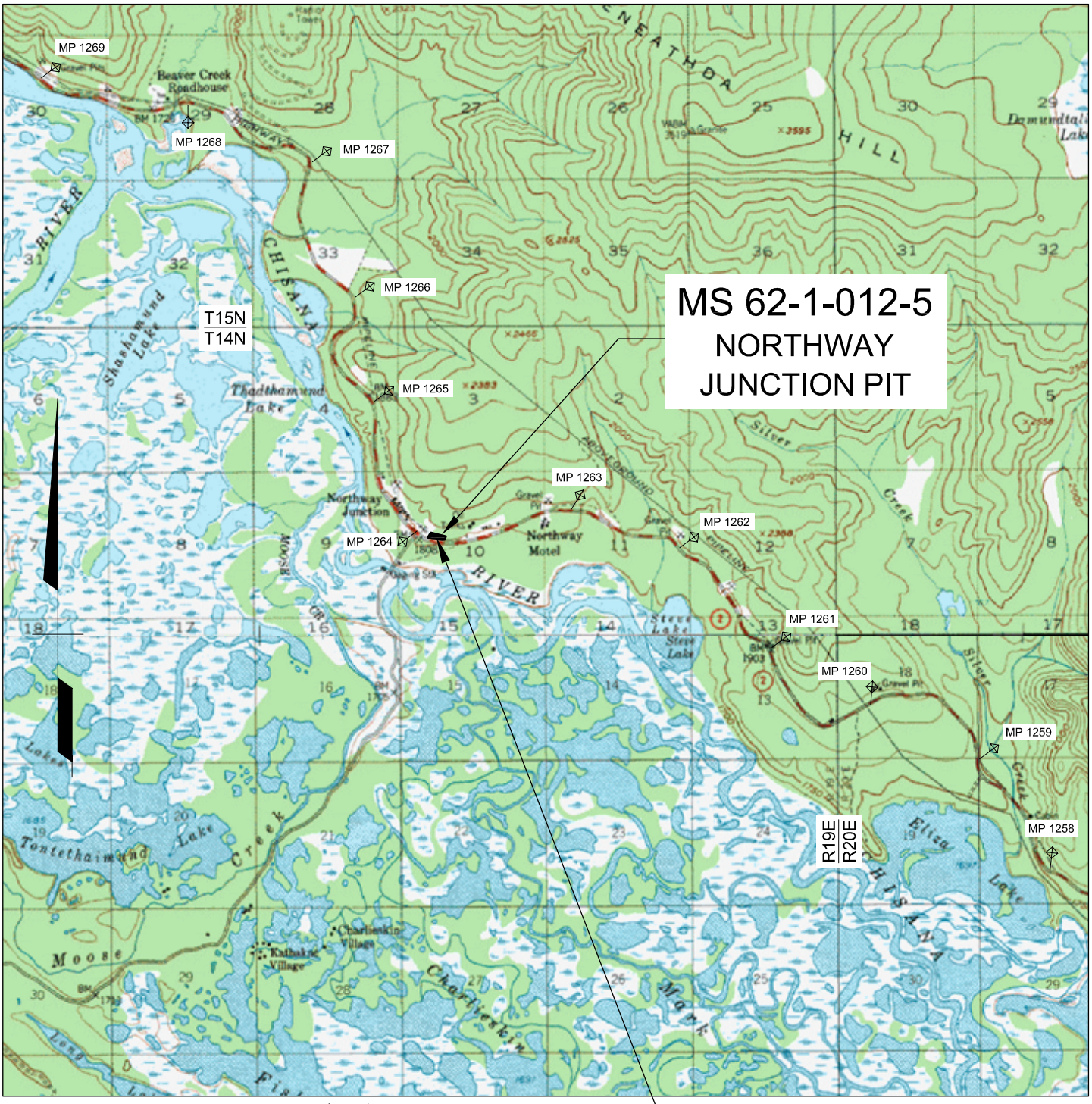
CONTENTS PAGE

CATEGORY:

ACTIVE - OPEN

According to information in the Northern Region Material Site files on July 20, 2007, this site lies on Northway Native Corporation lands (Doyon subsurface) subject to a DOT&PF right-of-way grant. The right-of-way was issued in 1961. The land was conveyed to Northway Native Corporation in 1982. DOT&PF Maintenance uses the site for stockpiling material and it should be retained for this purpose. Should the existing pit be lowered to the highway level, it could produce significant quantities of material.

LOCATION MAP



U.S.G.S. QUADRANGLE: TANACROSS (A-2)

GPS COORDINATES FROM GOOGLE EARTH

UTM (WGS84-METERS)
ZONE 7: N6,986,973 E459,666
AK STATE PLANE (NAD83-US SURVEY FT)
ZONE 2: N3,292,378 E1,674,220

ACTIVE - OPEN

0 0.5 1 2 3

GRAPHIC SCALE IN MILES

BASE MAP CREATED WITH TERRAIN NAVIGATOR PRO

Prepared By:
R&M CONSULTANTS, INC.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STATEWIDE MATERIAL SITE INVENTORY

MS 62-1-012-5

SCALE	DESIGNED	DRAWN	PAGE
AS SHOWN	P.K.H.	P.K.H.	2
	CHECKED C.H.R.	DATE MAY 2007	

project\1443.01\012 MS 62-1-012-5\MS 62-1-012-5 Topo Map, 1=1, 07/27/07 at 14:30 by pkh

SITE MAP

BASE MAP IS 2005 SATELLITE PHOTOGRAPHY.
THIS IS A PLANNING DOCUMENT ONLY. THE MATERIAL SITE BOUNDARIES SHOWN ON THIS DRAWING ARE APPROXIMATE. OWNERSHIP OF THE LANDS ADJACENT TO THIS SITE ARE UNKNOWN. THE ACCESS ROW SHOULD BE VERIFIED.

ACTIVE - OPEN

0 150 300 600 900

GRAPHIC SCALE IN FEET

BASE MAP FROM GOOGLE EARTH PRO 8/17/07

Prepared By:
R&M CONSULTANTS, INC.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STATEWIDE MATERIAL SITE INVENTORY

MS 62-1-012-5

SCALE	DESIGNED	DRAWN		
AS SHOWN	P.K.H.	P.K.H.		PAGE 3
	CHECKED C.H.R.	DATE AUG. 2007		

project\1443.01\012 MS 62-1-012-5\MS 62-1-012-5 Site Map, 1=1, 01/23/08 at 15:51 by pkh

STATEWIDE MATERIAL SITE INVENTORY
MATERIAL SITE INSPECTION FORM

THIS REPORT IS BASED ON A REVIEW OF EXISTING DATA AND BRIEF FIELD INSPECTIONS. THUS THE DATA CONTAINED HEREIN SHOULD BE CONSIDERED PRELIMINARY AND USED FOR PLANNING PURPOSES ONLY. USERS OF THIS DATA SHOULD VERIFY THE INFORMATION PRIOR TO USING IT FOR DESIGN OR CONSTRUCTION PURPOSES.

IF OTHER IS SELECTED FOR A SECTION, EXPLAIN IT IN SECTION 44. NOTES.
IF AN ANSWER IS UNKNOWN SELECT "UNKNOWN" OR LEAVE BLANK

1. **MS_ID** **62-1-012-5**
   Enter the full material site number e.g.. 65-9-045-2
2. **DATE_INSPECT** 9/14/2007
   Date of field inspection
3. **FLD INSPEC_ORG** PENDERGAST / R&M CONSULTANTS
   Name of inspector / Organization or Company
4. **REGION** NORTHERN
5. **LOCATION** ALASKA HIGHWAY
   Name of Highway
   Enter Name of Facility or Secondary Route Name (i.e.Kotzebue Airport, Nash Road, etc.)
6. **MILEPOST** 1264
   List the closest main highway milepost
7. **NAME** NORTHWAY JUNCTION PIT
   Enter commonly used name (s), e.g. Hess pit, Gobblers Knob, Midway. List all that apply separated by commas.
8. **MAINT_DIST/STAT** District INTERIOR Station TOK
   Highway Maintenance District and Station, for locations not on highways select other.
9. **QUAD** TANACROSS A-2
   U.S.G.S. Quad. Map
10. **TOWNSHIP /RANGE** T#S R#E T14N R19E Meridian CRM
    Section 10
11. **COOR_UTM**
    ZONE 7
    NORTHING 6,986,973
    EASTING 459,666
    UTM WGS84 - Meters
12. **COOR_STATE_PLANE**
    ZONE 2
    NORTHING 3,292,378
    EASTING 1,674,220
    Alaska State Plane NAD83 - Survey Feet
13. **BOROUGH** **TAX ID NO.**
14. **DNR_LAND_USE_PLAN** UPPER TANANA BASIN PLAN
15. **CATEGORY** (To be filled in the office)
15a. **CLASSIFICATION** ACTIVE
15b. **STATUS** OPEN

16. **POTENTIAL_STATUS** SIGNIFICANT

Estimated quantity of material in the site at the time of inspection.

NONE	There appeared to be no useable material in the site.
LIMITED	There appeared to be less than 25,000 c.y. available within the developed site.
SIGNIFICANT	There appeared to be greater than 25,000 c.y. available within the developed site.
EXPANDABLE	There was limited material within the developed site, but there appeared to be significant material outside existing site limits.
UNDEVELOPED	The pit has not been mined (used only for new sites).
CLOSED	There may be useable material left in the pit but it is not available.
UNKNOWN	
OTHER	The site does not fit any of the categories above. Explain in Section 44, Notes.

17. **PRESENT_USERS**

17a. **PRESENT_USER_1** DOT&PF MAINTENANCE

17b. **PRESENT_USER_2**

17c. **PRESENT_USER_3**

18. **PERMITTED _ACREAGE** 4.6

Area within site permit or R.O.W. boundaries, from permit application or property plat.

19. **DEVELOPED_ACREAGE** 4.3

Area within an existing pit, excluding spoil berms lying outside the pit, access roads etc. Explain below.

Includes those parts of the existing pit, highway cut, highway and access road within the right-of-way limits.

20. **ACREAGE_COMP_METHOD** FROM MAP/PHOTO

Method used to determine developed acreage.

21. **EST_QUAN_AVAIL** 110,000 ROUGH ESTIMATE

Estimated quantity available (b.c.y.), may be based on acreage computed above plus expansion area. Explain computation assumptions and calculations below.

To fully exploit the site the existing pit floor would have to be lowered to the current highway level. Excluding the highway and the undeveloped east end of the site (deep overburden?) there is about 2.8 acres available for mining. Assuming an average 40 feet of material there is approx. 112,000 c.y. of material available from the site (2.8 acres x 40 feet x 1,000 c.y. per acre-foot). It may be necessary to maintain access to the Doyon Quarry.

STATEWIDE MATERIAL SITE INVENTORY
MATERIAL SITE INSPECTION FORM

22. **ACCESS_TYPE** EXISTING ROAD / OPEN

NONE	No access road has been built.
EXISTING ROAD / OPEN	Drivable. May have gate.
EXISTING ROAD / REVEG	Can be reopened with little effort.
EXISTING ROAD / CLOSED W/BERMS	Can be reopened with little effort.
EXISTING ACCESS / REMOVED	Can be reopened with much effort.
SNOW ROAD	Can only be accessed during winter.
ICE ROAD	Requires crossing river or lake ice in the winter.
BARGE	Material can only be moved by barge.
OTHER	The site does not fit any of the catagories above. Describe in Section 44, Notes.

23. **ACCESS_LENGTH** 600
Approx. length from edge of pit to highway/secondary route (ft.)

24. **VEGETATION**

There was no vegetation in the existing pit and the highway cut face was covered by scattered small clump of brush and small poplar and spruce trees. The undeveloped northeastern corner was covered by birch, aspen, and spruce trees to 20 to 30 feet high.

25. **TYPE_1** BORROW PIT 26. **TYPE_2** QUARRY

Dominant type Subordinate type
General Types of Materials Available Enter data in Type_2 only if two types of material site available

QUARRY	Bedrock sources requiring blasting
BORROW PIT	Soils or soft bedrock (rippable), above water table
BAILING	Requires production below the water table
RIVER BAR	Sand/gravel bars in active channels

27. **OB_CLASS_1** 28. **OB_CLASS_2** OTHER
New Site or expansion Area Existing Pit (Spoil)
A site may have both. Data should be based on actual subsurface exploration, otherwise unknown.
Estimated average depth over the area.

NONE	3 TO 6 FT.	UNKNOWN
<3 FT.	>6 FT.	OTHER

29. **OB_TYPE_1** 30. **OB_TYPE_2** SPOIL
New Site or expansion Area Existing Pit (Spoil)
A site may have both.

SILT	PEAT	SOLID WASTE	OTHER
COLLUVIUM	SPOIL	UNKNOWN	

STATEWIDE MATERIAL SITE INVENTORY
MATERIAL SITE INSPECTION FORM

31. **MAT_TYPE_1** WEATHER. BEDROCK
Dominant type

32. **MAT_TYPE_2** BEDROCK
Subordinate type

BEDROCK	Bedrock sources requiring blasting
WEATHER. BEDROCK	Bedrock sources requiring ripping
FLUVIAL	Water deposited sand and gravel, includes glaciofluvial
GLACIAL	Glacial till
COLLUVIAL	Talus slopes, etc.
EOLIAN	Sand Dunes, etc.
SILT	Silt deposits, loess, fluvial, etc.

33. **PERMAFROST_1**
New Site or Expansion Area

34. **PERMAFROST_2** DATA OUTDATED
Existing Site

DETECTED IN MOST TEST HOLES
DETECTED IN SOME TEST HOLES
DETECTED IN IMMEDIATE VICINITY
DETECTED IN NO TEST HOLES
DATA OUTDATED
UNKNOWN
OTHER

35. **GROUNDWATER**

No groundwater was noted in any test boring explorations performed at the site. Additionally, no ponded water was observed during the Septmeber 2007 site inspection.

36. **LITHOLOGY_1** GRANITIC — Dominant type

37. **LITHOLOGY_2** _____ — Subordinate type

IGNEOUS ROCK	Undifferentiated Igneous Rocks
GRANITIC	Granite/Monzonite/Granodiorite
DIORITE/GABBRO	Diorite/Gabbro
BASALT	Dark colored fine-grained Igneous Rocks
GREENSTONE	Altered Volcanic Rocks w/green tint
METAMORPHIC ROCK	Undifferentiated Metamorphic Rocks
SCHIST/PHYLLITE	Includes rocks ranging from slate to schist
GNEISS	Includes hard schistose rocks
MARBLE	
CATACLASTIC	Incl. Valdez Formation Rocks, Kenai Penn.
MÉLANGE	Incl. McHugh Formation Rocks, Kenai Penn.
SEDIMENTARY ROCK	Undifferentiated Sedimentary Rocks
CONGLOMERATE	
SANDSTONE	Includes greywacke, etc.
SHALE/MUDSTONE	
LIMESTONE	
FLUVIAL	River and stream deposits (floodplain), includes outwash.
ALLUVIAL	Alluvial / Debris Fan deposits
GLACIOFLUVIAL	Eskers, kames, etc.
GLACIAL	Till
COLLUVIAL	Talus, etc.
EOLIAN	Sand Dunes, etc.
SILT	Loess, fluvial silts, etc.
OTHER	Explain in Section 44.

38. **MATERIAL_CLASSIFICATION**

ASTM Classification, generally they should range from coarse to fine.

38a.		38c.		38e.		38g.	
38b.		38d.		38f.		38h.	

39. COBBLES_AND_BOULDERS

Test Boring Callout / ASTM Classification, either a. or b. and c. (Can use ranges i.e. 0 to 20)

39a.	CONTAINS		
39b.	Est. % by VOL.		(Est. From Visual Observations)
39c.	MAX. SIZE (in.)		(Observed Size)

40. AGG_TEST_RESULTS

Year of test or report- Test result / Year of test or report- Test Results

40a. SG APP COARSE	1984- 2.63
40b. SG APP FINE	1971- 2.74, 2.70 / 1980- 2.74, 2.66, 2.68, 2.67, 2.74, 2.66, 2.73, 2.63, 2.73, 2.64, 2.68, 2.73, 2.64
40c. ABSORPTION CRSE	
40d. ABSORPTION FINE	1980- 2.3, 2.1, 2.1
40e. NORDIC ABRASION	
40f. L.A. ABRASION	1971- 33, 34 / 1980- 49, 36 / 1984- 27 / 1986 - 21
40g. DEGRADATION (T-13)	1971- 30, 70 / 1984- 58 / 1986- 44
40h. NASO4 LOSS COARSE	1984- 0.3 / 1986- 2.75
40i. NASO4 LOSS FINE	1984- 6.7 / 1986- 9.25

41. POTENTIAL_USABILITY

OTHER

Best known potential use of the material, based on records, exploration and laboratory data.

CONCRETE AGGREGATE PRODUCED	The site has produced concrete aggregate
PAVING AGGREGATE PRODUCED	The site has produced paving aggregate
CRUSHED PRODUCTS PRODUCED	Base, Surface Coarse, Subbase, etc. has been produced.
TYPE A AND B MATERIAL AVAILABLE	0 to 10 percent passing 200
TYPE C AVAILABLE	Compactable material
TYPE C NOT AVAILABLE	Uncompactable material (Lower Kuskokwim and Yukon River, etc.)
UNKNOWN	
OTHER	Explain in Section 44.

42. SPECIAL_PROBLEMS

OTHER

Special problems encountered or anticipated with use of the material, based on records, exploration and laboratory data.

ORGANIC CONTENT	The material is very difficult to compact.
HIGHLY WEATHERED GRAVEL	The gravel is highly weathered and may break down when handled.
BREAKS DOWN UNDER USE	Material breaks down on grade.
SENSITIVE TO WATER CONTENT	Material is sensitive to water content, i.e.. some glacial tills, soft bedrock.
VARIABLE MATERIAL	Deposit contains mixture of suitable and unsuitable material.
POSSIBLE CONTAMINATION	Site may be contaminated by petroleum products or hazardous materials.
UNKNOWN	
OTHER	Explain in Section 44, Notes.

43. **RIPRAP** POSSIBLE-FURTHER INVESTIGATION NEEDED

Class II or larger. Does not include production for erosion control riprap for ditches or culverts.

PREVIOUS PRODUCTION	There is a record of production.
POSSIBLE FURTHER INVESTIGATION NEEDED	The site is a bedrock quarry containing hard rock
NOT POSSIBLE	The site has soft rock or soil.
UNKNOWN	
OTHER	Explain in Section 44, Notes.

44. **NOTES**

Note number of item being discussed.

28. There are small waste berms in the northeast corner of the existing pit. It appeared that there was less than 6 feet of spoil,. in the berms.

41. Much of the granite in the site degrades rapidly to a gruss and may not be suitable for crushed aggregates. However, hard rock similar to that found in the adjacent Doyon Quarry has been noted in the northwest corner. The Doyon Quarry has reportedly been used to make crushed products for maintenance proposes.

42. It may be necessary to maintain the road across the site while it is being worked.