

AGREEMENT

ACME Asphalt and CITY of Three Forks, Montana

This Agreement is entered into this 8th day of July, 2025, by and between:

CITY: CITY of Three Forks, Montana (CITY) with address of P.O. Box 187, Three Forks, MT, 59752, which has the need for and the authority to contract for such materials, work and services and desires to have the CONTRACTOR perform as specified in Scope of Work.

CONTRACTOR: ACME Industries, Inc. 205 W. Park Street, Butte, MT 59701 (CONTRACTOR), which is authorized to do business in the State of Montana where the undersigned has authority to enter into this Agreement on CONTRACTOR'S behalf. CONTRACTOR represents it is qualified to provide materials and perform such work and services in a safe and efficient manner to the CITY.

1. **SCOPE OF WORK.** CONTRACTOR shall provide all materials and perform all work and services to complete the project described in the Scope of Work for the 2025 Headwaters Trail Maintenance, attached as Exhibit "A".

2. **Term.** CONTRACTOR shall commence work on July 9th, 2025 and complete the work as set forth in the SCOPE OF WORK no later than September 30th, 2025. CONTRACTOR shall provide materials and perform all work and services, obligations and requirements without delay time being of the essence. Violation is a material breach.

3. **COMPENSATION.** CITY agrees to pay CONTRACTOR \$136,880.00. CONTRACTOR agrees that all materials, work and services specified in the Scope of Work shall be provided for this amount. The amount charged or paid under this agreement shall not exceed the agreed amount, except for change of work orders that shall be considered additional work and shall be in agreed to in writing prior to commencement of additional work.

4. **PAYMENT SCHEDULE.** Payment requests shall include a billing statement specifically detailing all materials, work or services set forth in the SCOPE OF WORK that have been completed and all expenses incurred. Expense receipts shall accompany the payment request. Upon receipt of CONTRACTOR'S written payment request, CITY will assess the work and materials and approve the payment request or provide the CONTRACTOR with a written statement detailing items not approved by the CITY and the reason for disapproval. The CITY may only disapprove the payment request or a portion thereof based upon: (i) unsatisfactory job progress; (ii) failure to remedy defective construction work or materials; (iii) disputed work or materials; (iv) failure to comply with material provisions of the contract or accompanying documents, including but not limited to payroll certifications, lien releases, warranties, material certifications, and test data; (v) failure of a contractor to make timely payment for claims, including but not limited to claims for labor, equipment, materials, subcontracts, taxes, fees, professional services, rent, and royalties; (vi) damage to the CITY; or (vii) the existence of reasonable evidence that the contract cannot be completed for the unpaid balance of the contract sum. If the CITY does not provide a such a written statement to the CONTRACTOR within 14 days of receipt of a payment request, the payment request will be considered approved. CITY shall make payment within fourteen 14 days after CONTRACTOR'S payment request is approved.

5. **CONTRACT REPRESENTATIVES.** CONTRACTOR names Tom Rice as contact person who shall act as the liaison between the CITY and the CONTRACTOR and respond to requests from the CITY in writing promptly to prevent unreasonable delay in the progress of the Scope of Work and Payment Schedule. CITY names Ahren Hastings, with Solutions Engineered, LLC as contact person who shall act as a liaison between the CITY and the CONTRACTOR and respond to requests from the CONTRACTOR in writing promptly to prevent unreasonable delay in the progress of the Scope of Work and Payment Schedule.

6. **INFORMATION RELEASE.** CONTRACTOR will not release information to a third party without prior written approval from CITY. "Third parties" as used in this section shall not include CONTRACTOR'S agents including subcontractors or sub-consultants. Both parties agree to use reasonable care to not use information developed during this project for the benefit of others except as may be authorized in writing. All documents, records, maps, drawings, or other papers produced or acquired by CONTRACTOR during this project shall remain the property of CITY.

7. **DEFAULT, REMEDIES and TERMINATION.** The parties agree each term and condition contained herein is material and of the essence. This agreement may be terminated by either party immediately should either party fail to perform in accordance with any term or condition of this agreement after it fails to cure within ten (10) calendar days written notice. CITY may also terminate without cause upon written notice. Should this Agreement terminate for any reason, payment to the CONTRACTOR shall be made on the basis of materials provided and services performed to the date of termination.

8. **CONTRACTOR ADDITIONAL OBLIGATIONS.** The CONTRACTOR'S additional obligations include the following: (a) provide all labor, materials, equipment, supplies and incidentals necessary to perform and complete the Scope of Work; (b) prepare and present such information as may be pertinent and necessary for the CITY to pass critical judgment on the quality of the work; (c) perform work and services in accordance with generally accepted commercial or accepted industry standards regarding similar type work or services; (d) perform all professional services in connection with the Scope of Work at a standard of similarly situated professionals in the United States, meeting all building code requirements and to the full satisfaction of the CITY; (e) maintain appropriate safety standards and keep all areas of work and adjacent areas free from foreseeable risks of harm and dangers; (f) immediately inform the CITY of the presence of any hazardous condition or waste or other toxic substance identified under the Scope of Work of this agreement; (g) allow the CITY upon reasonable notice and at reasonable times the right of review, inspect and examine the CONTRACTOR'S place of work and records pertaining to this agreement; and (h) all work and materials shall carry no less than a one year warranty.

9. **LAWS AND REGULATIONS.** In performance of its obligations herein, CONTRACTOR, its agents and subcontractors shall comply with all applicable federal, state and local laws, rules and regulations. If during the term of this Agreement new laws or regulations become applicable, CONTRACTOR shall also comply with them without notice from CITY. CONTRACTOR specifically acknowledges the following provisions of law and its responsibility to abide by the same if such provisions are applicable:

- (a) Montana Labor Preference Section 18-2-403(1), Montana Code Annotated (MCA); Equal Opportunity. Section 49-3-207, MCA;
- (b) Prevailing Wage Rates. Pursuant to Section 18-2-403, MCA, CONTRACTOR must pay the standard prevailing wage rates, fringe benefits, pension contributions and travel allowances in effect and applicable to CITY, Montana. The current standard prevailing wage rates published by the Montana Department of Labor and Industry for job classifications necessary to complete the Scope of Work are incorporated by reference into this agreement. Contractor shall maintain payroll records in a manner readily capable of being certified for not less than 3 years after completion of the work and post a statement of wages and fringe benefits. If any contract exceeds 30 months the prevailing wage must be increased 3% after the first 12 months and every 12 months thereafter. Questions regarding the requirements of this section should be directed to the Montana Department of Labor and Industry, Labor Standards Bureau.
- ~~(c) Registration and Withholding (1% tax withholding). CONTRACTOR shall register with the Montana Department of Labor and Industry as required in accordance with Title 39, Chapter 9, MCA and comply with Title 15, Chapter 50, MCA. CONTRACTOR shall withhold and forward gross contract receipts to the State of Montana.~~

10. **SAFETY.** CONTRACTOR, on behalf of itself and CITY, assumes sole responsibility for initiating, maintaining and supervising all health and safety precautions and programs for all employees, subcontractors, and consultants in connection with the performance of this agreement. CONTRACTOR shall ensure that its employees, consultants, and subcontractors are adequately and appropriately trained pursuant to the Montana

Safety Culture Act, Title 39, Chapter 71, Part 15, MCA. CONTRACTOR shall also comply with the safety rules, codes, and provisions for occupational health and safety under Title 50, Chapter 71, MCA. CONTRACTOR shall post all notices necessary to ensure public safety for applications of chemicals.

11. **LIEN.** Provided that CITY has first made all payments as required herein, CONTRACTOR shall pay all valid bills and charges for material and labor incurred by it and arising out of the Scope of Work and will hold CITY free and harmless against all liens and claims of liens or services, labor and materials filed against the property upon which the Scope of Work is commenced. As evidence of payment of service providers, material men, consultants and subcontractors, CONTRACTOR may be required to file lien waivers. CONTRACTOR will also file the same for its services. CONTRACTOR shall provide the necessary information to identify all CONTRACTORS of services, materialmen, consultants and subcontractors.

12. **WAIVER AND INDEMNIFICATION.** CONTRACTOR waives any and all claims and recourse against CITY or its officers, agents or employees, including the right of contribution for loss or damage to person or property arising from, growing out of, or in any way connected with or incident to the performance of this agreement except claims arising from the intentional acts or negligence of the CITY or its officers, agents or employees.

- (a) CONTRACTOR will indemnify, hold harmless, and defend the CITY and its officers, agents, and employees against any claim, damage, liability, loss, expense, fee, action or charge (including liability where activity is inherently or intrinsically dangerous), including attorney's fees (including fees of the CITY Attorney) arising out of CONTRACTOR'S acts, errors, omissions, or negligence or from CONTRACTOR'S failure to comply with the requirements of this agreement or with any applicable law relevant to the performance of this agreement. In the event of an action filed against CITY resulting from CONTRACTOR'S performance under this agreement, CITY may elect to represent itself and incur all costs and expenses of suit.
- (b) CONTRACTOR assumes all liability for person contact with chemicals applied CITY property.
- (c) These obligations shall survive termination of this agreement.

13. **INSURANCE.** CONTRACTOR shall carry Commercial General Liability insurance in the amount no less than \$1,500,000.00 for each occurrence and Automobile Liability in the amount of \$1,500,000.00 combined single limit. If CONTRACTOR is an architect or engineer or performing other professional services it shall carry Professional Liability or Errors and Omissions coverage in the amount of \$1,500,000.00. CONTRACTOR shall disclose insurance provisions of its policies related to toxic substances or waste. CITY may require an additional policy covering toxic substances or waste. All insurance policies shall be primary and noncontributory, shall name CITY as additional insured, and shall be maintained for a period of time equal to the warranty period in the prime contract, or for a period of one (1) year after completion of work, whichever is longer. CONTRACTOR shall require all consultants and subcontractors to meet the same insurance coverage. Certificates of Insurance evidencing Gallatin CITY as additional insured and endorsement thereof must be supplied with the signed return of this Agreement. Such certificate shall require no less than fifteen (15) days notice of cancellation to CITY. CONTRACTOR shall put CITY on immediate notice of any changes or cancellation in coverage.

14. **INDEPENDENT CONTRACTOR.** CONTRACTOR, its consultants and subcontractors, shall at all times be considered independent contractors engaged in an independently established business or profession and rendering work and services in the course of such business as an independent contractor. Notwithstanding its obligation to fulfill the Scope of Work, CONTRACTOR and its consultants and subcontractors have been and will continue to be free from control or direction over their performance under this agreement and in fact. CITY will not be responsible for withholding any state or federal taxes or social security, nor will the CITY extend any of the benefits to the CONTRACTOR that it extends to its employees. The CONTRACTOR is required to maintain necessary records and withholding.

15. **WORKERS COMPENSATION.** As an independent contractor, CONTRACTOR must provide Workers Compensation for all employees in the amount required by Montana law. A Certificate of Insurance

showing compliance with Montana Workers Compensation law (or exemption therefrom) must be supplied to CITY with the signed return of this Agreement.

16. **PAYMENT AND PERFORMANCE BONDS.** CONTRACTOR is required to post the following bonds in an amount no less than the sum of the contract price(check applicable boxes)

☐Performance Bond ☐Payment Bond **X No Bond**

Bond documents must be delivered to the CITY with the signed return of this Agreement.

17. **ATTORNEY'S FEES.** If it is necessary for either party to bring an action to enforce the terms, covenants, or conditions of this Agreement, the prevailing party shall be entitled to reasonable attorney fees and costs, including paralegal costs, to be set by the appropriate court, including fees of the City Attorney.

18. **VENUE.** An action to enforce this Agreement shall be brought in the District Court of the Eighteenth Judicial District, Gallatin County, Montana.

19. **NOTICE.** All notices and certifications made pursuant to this agreement shall be delivered to the addresses in Paragraph 1 above by certified mail or personal delivery in care of the party's representative named above. A party shall give the other prompt notice of any change in address.

20. **INTERPRETATION.** This Agreement shall be governed and interpreted according to the laws of the State of Montana. Section headings are for convenience only and are not intended to define or limit any provisions of this Agreement. The provisions of this Agreement are independent and severable, and the invalidity, partial invalidity, or unenforceability of any one provision or portion thereof shall not affect the validity or enforceability of any other provision. Both parties having been given an opportunity to have this Agreement reviewed by others, the Rule of Construction providing that the Agreement shall be construed against the drafter will not be used in the interpretation of this Agreement.

21. **ENTIRE AGREEMENT.** This document represents the entire and integrated agreement between the CITY and CONTRACTOR and supersedes all prior negotiations, agreements or representations, either written or oral. This agreement may be amended only by written instrument signed by both CITY and CONTRACTOR.

22. **NON-WAIVER.** Delay, waiver or failure to enforce or assert any claim, defense or provision of this agreement shall not operate as a waiver of any of the CITY's rights and remedies at law or equity that are expressly reserved without limitation.

23. **NON-ASSIGNMENT.** It is expressly agreed that this Agreement shall not be assigned, in whole or in part, without the prior written consent of the CITY. Such consent shall not be unreasonably withheld.

24. **SUCCESSORS.** This Agreement shall be binding upon, inure to the benefit of, and be enforceable by the parties hereto and their respective heirs, successors, and assigns.

25. **EXECUTION OF AGREEMENT.** The CITY Clerk will keep the original agreement. An exact unaltered copy of the original agreement has the same force and effect as the original.

IN WITNESS WHEREOF the parties have signed this Agreement for Services.

CONTRACTOR

CITY

Name: Tom Rice
Title: Owner

Name: Randy Johnston
Title: Mayor

Exhibit ‘A’
(Attach bid/quote submitted on 6/19/2025)

1/10/10

W. Park

MT 59701

Received
8/19/12
5:30pm

City of Three Forks

enclosed

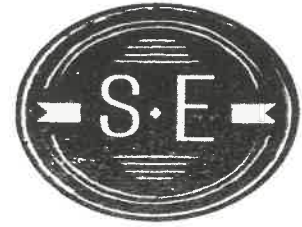
Forks Trails -

Seal and Seal Coat 2005

Three Forks Trails-Crack Seal and Seal Coat 2025

DATE: 6/6/2025

NOTE: CIVIL CONSTRUCTION BID



SOLUTIONS ENGINEERED, LLC

ITEM NO.	DESCRIPTION	EST. QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	Mobilization	1	LS	\$ 22,000.00	\$ 22,000.00
2	Protect Existing Utilities	1	LS	\$ 500.00	\$ 500.00
3	Traffic Control	1	LS	\$ 2000.00	\$ 2000.00
4	Crack Seal*	3,000	LF	\$ 1.00	\$ 3000.00
5	Sand Seal Coat*	62,000	SF	\$.25	\$ 15,500.00
6	Tack Coat OR Second Sand Seal Coat*	62,000	SF	\$.20	\$ 12,400.00
7	Asphalt Patch Remove and Replace*	5,000	SF	\$ 5.00	\$ 25,000.00
8	Asphalt Crack Patch Remove and Replace*	2,500	SF	\$ 5.00	\$ 12,500.00
9	Asphalt Overlay*	16,480	SF	\$ 2.50	\$ 41,200.00
10	Additional 3" Gravel Base*	4,560	SF	\$.50	\$ 2,280.00
11	Truncated Domes	2	EA	\$ 250.00	\$ 500.00
TOTAL				\$ 136,888.00	

*Note: estimated quantities, payment will be made for actual quantities placed

CITY OF THREE FORKS

Request for Proposals



The City of Three Forks is seeking proposals from qualified firms or individuals for construction of the Headwaters Trail System "Crack Seal and Seal Coat - 2025". Proposals shall be submitted to the City of Three Forks at the Office of the City Clerk, City of Three Forks, 206 Main Street, or P.O. Box 187, Three Forks, MT 59752 or via email to cturner@threeforksmontana.us no later than 2:00 p.m. local time on June 27th, 2025. The proposals will then be reviewed and a recommendation for award is scheduled for July 8th, 2025, at 6:00 p.m. during the City Council meeting at 206 Main Street, Three Forks, Montana.

The project for which the work under the service agreement may be whole or only a part is generally described as follows:

Crack seal and seal coat approximately 17,500 lineal feet of existing eight-foot-wide asphalt trail located along Jefferson Street and Talc Road in the City of Three Forks. Work also includes removal and replacement, asphalt patching, and asphalt overlay operations.

The Drawings, Specifications and Bid Sheet may be examined at the following locations:

- Builders Exchange – Online, downloading and printing is permitted
- City of Three Forks (206 Main Street, Three Forks, MT 59752)
- City's website at www.threeforksmontana.us

Questions can be directed to the project engineer, Ahren C. Hastings, P.E. Solutions Engineered, LLC, ahren.hastings@gmail.com cell: 970.381.4358.

CONTRACTORS and any of the CONTRACTORS' subcontractors bidding or doing work on this project will be required to be registered with the Montana Department of Labor and Industry (DLI). Forms for registration are available from the Department of Labor and Industry, P.O. Box 8011, 1805 Prospect, Helena, Montana 59604-8011. Information on registration can be obtained by calling 1-406-444-7734. CONTRACTOR is required to have registered with the DLI prior to bidding on this project in accordance with 39-9-102 of Montana Code. The CONTRACTOR must ensure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex or national origin.

The right is reserved to reject any or all proposals received, to waive informalities, to postpone the award of the contract for a period of not to exceed sixty (60) days, and to accept the lowest responsive and responsible bid which is in the best interest of the OWNER.

The Contractor is required to be an Equal Opportunity Employer. Prevailing wage rates are required.

ADVERTISEMENT DATES:

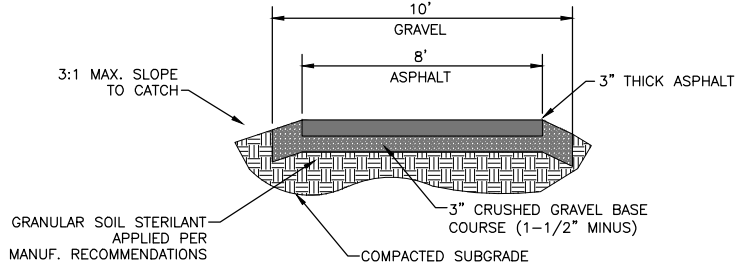
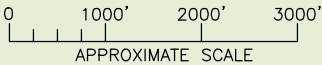
Published at: Bozeman Daily Chronicle (BDC)
Belgrade News (BN)

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June 12, 2025 and June 19, 2025 (BN)

Posted at Montana Builder's Exchange, on City Hall, on the City's website at www.threeforksmontana.us and the City's Facebook page at www.facebook.com/threeforksmontana.us and in several locations around the City of Three Forks.



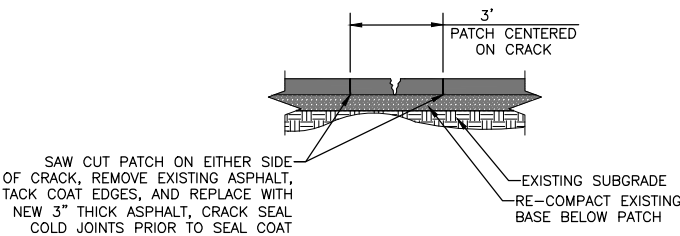
PLAN



TRAIL SECTION DETAIL

1
C1.1

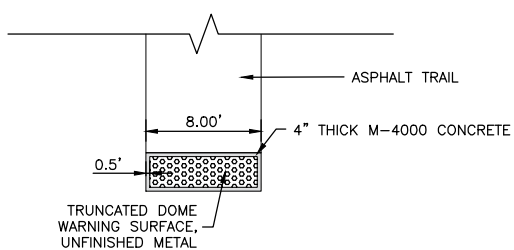
NO SCALE



CRACK PATCH REPAIR DETAIL

2
C1.1

NO SCALE



TRUNCATED DOME DETAIL

3
C1.1

NO SCALE

- GENERAL NOTES**
1. ALL WORK SHALL CONFORM TO MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS, 7TH EDITION AND SUPPLEMENTAL SPECIFICATION SECTIONS 02504A AND 02511 OF THIS PROJECT.
 2. ALL DISTURBANCE TO THE AREA MUST BE REPAIRED TO ITS ORIGINAL CONDITION. SPOILS FROM EXCAVATIONS CAN BE WASTED ONSITE ADJACENT TO THE TRAIL.
 3. ALL NECESSARY PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
 4. TRAFFIC CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR.
 5. ONE CALL UTILITY LOCATE IS THE RESPONSIBILITY OF THE CONTRACTOR.
 6. EXACT EXTENTS AND PATCH LOCATIONS WILL BE PROVIDED BY THE OWNER.
 7. PATCHING SHALL BE INSTALLED PER DETAIL 1 OF THIS SHEET. SAW CUT AND TACK COAT EDGES OF PATCHING EXTENTS.
 8. ALL COLD JOINTS FROM PATCHING SHALL BE CRACK SEALED PRIOR TO APPLICATION OF SEAL COAT.
 9. REMOVED ASPHALT TO BE DISPOSED OF AT CITY SHOP.

HEADWATERS TRAIL SYSTEM

THREE FORKS, MT

CRACK SEAL AND SEAL COAT-2025

PLAN AND SECTION



SOLUTIONS ENGINEERED, LLC

AHREN HASTINGS, P.E.
OWNER
970.381.4358
ahren.hastings@gmail.com

DRAWN BY: ACH
DESIGNED BY: ACH
QUALITY CHECK: ACH
DATE: 6.6.25
JOB NO. SE24-006
FIELDBOOK N/A

SE24-006 C1.1 2025 - SEAL COAT DWG

SHEET C1.1

DIVISION 2 - SITE WORK
SECTION 02504A
PAVEMENT SEALING - SAND SEAL

PART 1 - GENERAL

1.01 DESCRIPTION

The work covered under this section consists of furnishing all labor, equipment, materials and incidentals necessary in preparing and treating an existing surface with an emulsified asphalt and sand seal in accordance with the referenced publications and these specifications. Where these specifications differ from the referenced publications, the former shall govern. The pavement coating shall consist of tack coat and single coat application of emulsified asphalt, sand aggregate, mineral filler and water OR a two coat application of emulsified asphalt, sand aggregate, mineral filler and water as specified herein and shall conform to the dimensions, lines and grades shown on the plans or established by the ENGINEER.

1.02 SUBMITTALS

Samples of the emulsion, crack sealer, mineral filler and aggregate that the CONTRACTOR proposes to use, together with a statement as to their source, must be submitted and approval obtained before use of such material begins. The CONTRACTOR shall furnish a manufacturer's certified report for the aggregate and each consignment of the emulsion shipped for the work and a job mix design for the sand seal. The report and job mix design shall be delivered to the ENGINEER not less than 10 days before application. The manufacturer's certified report for the emulsion shall not be interpreted as a basis for final acceptance. All such reports shall be subject to verification by testing samples of the emulsion as received for use on the project. Samples of emulsion shall be obtained by the CONTRACTOR at the project delivery point for each tank load.

1.03 APPLICABLE PUBLICATIONS

- A. "A Basic Asphalt Emulsion Manual", The Asphalt Institute.

1.04 PRODUCT HANDLING

Deliveries shall be made so that all the mixture prepared for a day's run can be applied during daylight, unless artificial light is provided and night operations are approved by the ENGINEER.

1.05 SCHEDULING OF WORK

The CONTRACTOR shall work with the ENGINEER to schedule the work covered in this section to minimize inconvenience to the OWNER's operation on the site. The CONTRACTOR's schedule shall be approved by the ENGINEER prior to commencing work.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Emulsified Asphalt, SS-1 or SS1H, or approved equal. Asphalt emulsion shall not be of the clay type. Asphalt emulsion shall meet Section 02502 of Montana Public Works Standard Specifications, 7th Edition. Contractor shall provide submittals for the proposed material to the Engineer for review. Only materials approved by the Engineer shall be used.
- B. Crack filler – Contractor shall provide submittals for the proposed material to the Engineer for review. Only materials approved by the Engineer shall be used.
- C. Sand – Sand shall consist #50 to #70 grit silica sand. Contractor shall provide submittals for the proposed material to the Engineer for review. Only materials approved by the Engineer shall be used.
- D. Water - the water used in all mixtures shall be fresh and potable.
- E. Mineral Filler – Contractor shall provide submittals for the proposed material to the Engineer for review. Only materials approved by the Engineer shall be used.
- F. Tack Coat – Asphalt emulsion shall meet Section 02502 of Montana Public Works Standard Specifications, 7th Edition. Contractor shall provide submittals for the proposed material to the Engineer for review. Only materials approved by the Engineer shall be used.

PART 3 - EXECUTION

3.01 WEATHER LIMITATIONS

The asphaltic emulsion sand seal coat shall not be applied when the weather is rainy, foggy, rain threatens, or when atmospheric or pavement temperature is below 50 degrees F.

3.02 SURFACE PREPARATION

- A. The surface must be free of all foreign material, such as sand, dust, clay and grease, which might adversely effect bonding of the seal coat. High pressure air blowers, vacuums or sweepers shall be used to remove these objectionable materials. Where there are deposits of grease and oil, a detergent (Trisodium Phosphate, etc.) and stiff brush should be used to scrub the area clean. When detergents are used, the pavement shall be thoroughly rinsed with water. After cleaning and removing grease and oil spots, the areas should be sealed with an approved sealer.
- B. All weeds or other vegetation growing through the asphaltic concrete shall be removed and sprayed with a suitable chemical sterilant.
- C. Thoroughly clean all cracks of all foreign matter. All cracks between 1/8" and up to 1/2" wide shall be routed, blown clean and filled with approved crack filler. Larger cracks may require several applications. Allow crack filler to cure prior to sand sealing.
- D. The pavement surface shall be inspected and approved by the engineer prior to the application of crack sealer or sand seal.

3.03 APPLICATION PROCEDURES

- A. Sand Seal shall be mixed in a suitable tank to a uniform free-flowing consistency and applied by a squeegee-type or other suitable mechanized material spreading equipment. The nominal effective application rate of the emulsified asphalt shall be 0.21 gal./square yard, and for the sand aggregate, 1 # per gallon of emulsified asphalt. This may require two or more applications. The actual application rate shall be governed by the approved mix design for the job. Mineral filler shall be added to the mix as needed for stability and set.
- B. Prior to sand sealing in exceptionally hot weather, dampen the surface with water. Remove any excess water leaving a slightly damp surface.
- C. Sand Seal should be applied to the area in continuous parallel lines and spread immediately.
- D. If a Tack Coat is elected to be used in lieu of a second coat of Sand Seal, prior to application of the Sand Seal, the Tack Coat shall be allowed to fully break prior to placement of the Sand Seal. All additional specifications of Section 02502 of Montana Public Works Standard Specifications, 7th Edition shall be followed for application of the Tack Coat.

3.04 GENERAL PRECAUTIONS

- A. Weather Limitation - No part of the construction involving the application of sand seal shall take place during or just prior to rainfall. Air temperature shall be at least 50 degrees F. and rising.
- B. Salt and De-icing agents - Residues from rock salt or other deicing agents can cause dis-bonding of the sealer. In areas where these materials are used, the pavement shall be cleaned with a detergent, then thoroughly rinsed with water.
- C. Curing Time - As soon as any application is dry to the touch and won't scuff under normal walking, another application can be made. Complete curing will take approximately 24 hours in warm clear weather.

3.05 TRAFFIC CONTROL

Traffic control will be the responsibility of the CONTRACTOR. Necessary flagging, barricades or other measures needed to keep traffic off completed work until at least 2 hours after the work is completed each day will be furnished by the CONTRACTOR. All traffic control procedures and devices shall conform to the Manual on Uniform Traffic Control Devices and to all applicable sections of these specifications.

END OF SECTION

DIVISIONS 2 - SITE WORK

SECTION 02511 CRACK SEALING

PART 1 - GENERAL

1.01 DESCRIPTION

This work involves cleaning and/or routing out existing cracks and placing of hot asphalt-rubber sealant material in joints and cracks shown on the plans or at the locations directed by the ENGINEER.

1.02 SUBMITTALS

Certificates and Test Reports: Submit certificates of compliance and test reports for asphalt mixtures, rubber compounds, temperatures, and compaction signed by the material producer and CONTRACTOR.

1.03 PRODUCT HANDLING

Crack sealant shall be delivered to the site in unopened containers or packages. Sealant delivered to the site in the machine hopper shall not be accepted. The product shall be transported in strict conformance with the manufacturer's guidelines or recommendations.

1.04 SCHEDULING OF WORK

The CONTRACTOR shall work with the ENGINEER to schedule the work covered in this section to minimize inconvenience to the OWNER's operation on the site. The CONTRACTOR's schedule shall be approved by the ENGINEER prior to commencing work.

PART 2 - PRODUCTS

2.01 ASPHALT-VULCANIZED RUBBER MATERIAL

- A. The asphalt to be used shall have a maximum penetration of 150 when tested in accordance with procedures outlined by AASHTO. CrafcO brand sealant Roadsaver #221 or approved equal is an acceptable crack sealing material.
- B. Rubberized sealant may be considered by the Engineer and if proposed shall meet the specifications below. The contractor shall also provide information verifying compatibility of crack sealant with existing crack sealing material in place on the surface.

The granulated crumb rubber (100 percent vulcanized) shall meet the following requirements.

<u>Passing Sieve</u>	<u>Percent</u>
No. 8	100
No. 10	98-100
No. 40	0-10

The sieves shall comply with the requirements of AASHTO M-92.

The specific gravity of the granulated crumb rubber shall be 1.15 ± 0.02 and shall be free of fabric, wire, or other contaminating materials, except that up to 4 percent of calcium carbonate may be included to prevent particles from sticking together.

The proportions of the two materials by weight shall be 75 percent ± 2 percent asphalt and 25 percent ± 2 percent rubber.

The material will be packaged in boxes with a polyethylene liner.

2.02 EQUIPMENT

A. General: The crack sealing equipment shall consist of a heated rubberized asphalt joint sealing machine of at least 50 gallon capacity of current manufacture.

B. Heating and Capacity: The mixing/holding tank shall have a minimum 50-gallon capacity. It will be heated indirectly by an oil chamber welded to the lower half of the tank. The oil chamber will have heating elements sufficient to heat the oil to the mixing temperature.

The entire tank is to be insulated with a minimum of 2 inches of fiberglass. The tank should have a solid hinged lid to prevent heat loss.

C. Agitation: The equipment shall have an auger mechanism capable of thoroughly mixing the sealant. Direction of rotation and speed of agitation shall be able to be controlled by the operator, either in an automatic, semi-automatic, or manual mode.

D. Material Pump and Piping System: The pump shall be mounted on the unit. The pump should be a hot asphalt pump. The plumbing on the unit shall be arranged so the pump can fill the tank with the initial charge of material, apply pressure to the application nozzles, or recirculate the material in the tank.

A tank shall be provided to hold solvent. It shall be plumbed into the piping system so that the solvent can be added to the mixture or be used to clean the piping system.

E. Applicator Hose: One applicator hose equipped with a shutoff cock and applicator and shall be provided. A pressure regulating device shall be provided to regulate pressure on the applicator nozzles. This device should be mounted so it will bypass into the holding tank if the applicator nozzles are shut off.

F. Power to operate the material pump, agitator, and heater shall be of dependable operation capable of performing the operation and in good repair. The power shall be transmitted through hydraulic pumps and motors in such a manner that the material pump and auger can be operated together or separately in either forward or reverse rotation.

G. Crack Cleaning Apparatus: Routing and sandblasting equipment in good repair and of acceptable industry standards shall be used for cleaning all cracks.

PART 3 - EXECUTION

3.01 GENERAL

Sealing operations of prepared joints and cracks shall not begin prior to approval of the ENGINEER.

3.02 CRACK PREPARATION

Prior to the application of hot asphalt-based sealant, joints and cracks more than 1/2 inch wide shall be cleaned to remove dust, dirt, moisture and foreign material or old sealant. Joints and cracks less than 1/2 inch and more than 1/8 in width require routing to widen the cracks to a width of 1/2 inch and to a depth of 7/8 inch, \pm 1/8 inch. Cracks less than 1/8 inch in width do not require crack sealing.

3.03 MIXING AND AGITATING

Asphalt sealant material shall be unpacked and placed in joint and crack sealing machine for heating and mixing. The asphalt-rubber shall be heated to a minimum temperature of 300°F. Material shall not be heated in excess of manufacturer's recommendations. The material shall be held in the mixing tank at application temperature until very little separation of the rubber and asphalt occurs when a bead of sealant material is placed on the pavement. Sealant material may be added to the mix as long as the minimum temperature of 300°F is maintained.

3.04 SEALING JOINTS AND CRACKS

A. Joints and cracks should be sealed from the bottom up. Sealant material shall be applied so it is flush with the surface and is smooth.

B. Traffic shall not be allowed on the material until it has cured or until it has been sanded or papered to prevent tracking.

3.05 SWEEPING

Asphalt surfaces shall be swept free of all dust, dirt, and residual gravel and sand left over from the winter plowing, sanding operations, routing and crack sealing, general debris, and foreign matter by means of a power street sweeper or hand brooming. Water washing may be required to remove agglomerated clay, shale or other material that resists removal by mechanical or hand methods. .

END OF SECTION