Emergency Management
Fall River County

Franklin W. Maynard CEM CFM
906 N. River St.
Hot Springs, SD 57747

605 745-7562 605 890-7245 frem@gwtc.net

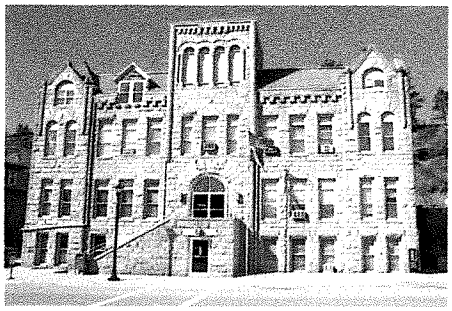
SOUTH DAKOTA EMERGENCY MANAGEMENT ASSOCIATION

Date: July 16, 2019

Subj: Commission Update

1. **PDM Update:** The next PDM meeting will be held on Thursday, July 18th, 2019. The meeting will continue to gather information for the plan.
2. **SLA Documents:** I am requesting approval to have the Chairman sign the Quarterly Report Single Signature Sheet. This form verifies hours worked, claims paid and proof of such payments are on file in the Auditor's Office.
3. **2019 SD National Guard Exercise:** The 82nd Civil Support Team conducted a drill on Wednesday, July 10th at the Hot Springs School Complex.
4. **Temporary Employee:** Kaylon Russell is working with the responding agencies as well as the city and county public works departments to gather information and input the data into the CRMCS system. Additionally, Kaylon will be doing individual credentials for all responders.
5. **Battle Mountain Road:** I have been contacted by the NWS regarding the condition of the road leading up to the towers. Their concern is getting a propane truck to their tank. This issue holds true for other propane tanks for the emergency generators at the towers. I will be exploring an alternate option to access the towers.
6. **Custer County Pre Rally Meeting:** The meeting is scheduled for July 25th, starting at 10am in the Custer Courthouse.
7. **Fires & Incidents:**
   7/3/2019: Tornado sightings near Dewey. Edgemont spotters called out.
   7/6/2019: Lightning fire: Fall River/Custer County landfill: Edgemont Fire
   7/6/2019: Boat vs Jet Ski Accident: Angustura Dam: State GF& P, HS Ambulance & Life Flight
   7/10/2019: SD NG 82nd CST Exercise:
   7/11/2019: Sig. 1 Hwy 18 mm 4. Edgemont Fire & Ambulance

Franklin W. Maynard, CEM, CFM
Emergency Manager
Fall River County
906 N. River Street
Hot Springs, SD 57747



FALL RIVER & OGLALA LAKOTA COUNTY TREASURER

906 North River Street
Hot Springs, SD 57747
Phone: 605-745-5145
Fax: 605-745-3530

July 11, 2019

Fall River County Commissioners

RE: Catherine Tornquist/Tina Post Delinquent Tax Payment Plan

Attached you will find a letter from Tina Post. She is Catherine Tornquist daughter. In her letter she explains that she Is aware of her deceased mothers back taxes and explains her plan to pay the delinquent taxes.

As of today, July 11th, there are 2 parcels out on Hot Brook Estates that are delinquent from 2014-2018. Together the total back taxes come up to $4,157.35. If you agree to her payment plan of $100.00 a month, her pay off won't be until 2023. When I talked to her, she can only afford the $100.00 a month, but says she is trying to get a loan.

In her letter, she has explained why this property is unable to be put into her name (Tina Post) and explains why its still in her deceased mothers name (Catherine Tornquist). I am unsure if this will be a factor of approving her agreement or not based on the circumstances. I understand that to be consistent, you make the agreement with the person holding the Deed and we try not to go too far out on the payoff date. I understand this is a different situation, just something to think about.

I am in touch with Tina thru email as she lives in Colorado and told her I would bring up her letter to you and because of the situation, thought I would write this letter as her circumstances can be a little sensitive.

Thank You,

Kelli Rhoe

Kelli Rhoe
Fall River/Oglala Lakota County Treasurer

Fall River County Treasurer

From: T Post <ladyhulk77@hotmail.com>
Sent: Tuesday, June 25, 2019 8:47 AM
To: frtreas@gwtc.net
Subject: Payment Plan

Fall River County Commissioners Office

I am writing this letter to explain the current situation with the property owned by my mother Catherine Tornquist. There is 4.048 acres in Hot Brook Estates, this is the only thing I have left of her and this was her home which she dearly loved.
In 2011 my brother, Matthew Tornquist murdered my mother. He was convicted of this crime in the summer of 2014. I was under the impression that I would receive a death certificate at that time. However, because her body has never been found this has been a challenging legal situation. As of today, there is still no death certificate.
Due to my having an emotional breakdown and the downward spiral of depression, I have not attended to this matter. After therapy and regaining my mental health, this is a priority. Financially, I work for Jax Mercantile in Loveland, Colorado for over a year as a Department Manager.
As of now, I am working on asking for a death certificate-as she had no will. Colorado is my home which makes it difficult to be there for this hearing.
I have paid the mobile home taxes up to date and would like to do the same with both parcels of the land. In order to do that, I will have to start with payments of $100 per month. I apologize for this matter coming to these circumstances. Please allow me to hold on to this property and the opportunity to sort out my mother's estate.

Thank you all for your time and consideration on this matter.
Tina Post
06/25/2019

Tina Post

FALL RIVER COUNTY ORDINANCE #2019-01

AN ORDINANCE PROHIBITING THE USE OF DYNAMIC BRAKE DEVICES IN SPECIFIED LOCATIONS WITHIN FALL RIVER COUNTY

A dynamic braking device is a device used primarily on trucks which convert the engine from an internal combustion engine to an air compressor for the purpose braking without the use of wheel brakes. These devices are commonly referred to as "air brakes," "Jacob's Brakes" or "Jake Brakes." The use or operation of a dynamic braking device is hereby prohibited in specified, identified areas, within Fall River County, unless:

(a) Use of the dynamic braking device is necessary to avert imminent danger; or
(b) Use by emergency vehicles.

_____

Chairman: Fall River County Commissioners

First Reading:

Second Reading:

Published:

Effective:

ZEIMET, Francis (SHILL)

Fall River County Commissioners,

I understand you are looking into some kind of regulation for dynamic brakes on trucks. I would like to express my opinion on this matter. First of all I am against this for the simple fact that it is a safety issue. The hill coming into Hot Springs from the west is dangerous enough if everything works right but if you eliminate engine brakes it will definitely make it a safety issue.

I see what you are trying to do and I get it but I think for safety reasons it is not a good idea. The problem mostly comes from unmuffled trucks running their Jake Brakes and some of these are extremely loud. All of our trucks at Simon have mufflers on them so they are not that loud. I don't know what the right answer is but I don't think it is right to just ban engine brakes altogether.

If you do put a ban on all engine brakes in the county you are probably going to need more deputies to enforce it with all the trucks coming and going.

Thank You for your time,

Francis

SIMON

Francis Zeimet
Southern Hills Manufacturing Supervisor

North Region
1700 School Street, Hot Springs, SD 57747
OFFICE 605-745-5206 MOBILE 605-890-5206

fzeimet@simonteam.com

HOT SPRINGS, SOUTH DAKOTA 57747

FALL RIVER COUNTY, SOUTH DAKOTA

Name of Claimant: Fall River County Highway Department
P.O. Box 939
Hot Springs, S.D. 57747

Date: 07-03-2019
SHERIFF'S DEPARTMENT GAS PURCHASES:
FROM DATE: 06-01-2019
THROUGH DATE: 06-30-2019
TOTAL GALLONS: 1272.40
TOTAL: $ 3010.35

FRC HWY: KM

HOT SPRINGS, SOUTH DAKOTA 57747

FALL RIVER COUNTY, SOUTH DAKOTA

Name of Claimant: Fall River County Highway Department
P.O. Box 939
Hot Springs, S.D. 57747

Date: 07-03-2019
WEED BOARD FUEL PURCHASES:
FROM DATE: 06-01-2019
THROUGH DATE: 06-30-2019
GALLONS: 314.10
TOTAL: $ 744.01

FRC HWY: km

HOT SPRINGS, SOUTH DAKOTA 57747

FALL RIVER COUNTY, SOUTH DAKOTA

Name of Claimant: Fall River County Highway Department
P.O. Box 939
Hot Springs, S.D. 57747

Date: 07-03-2019
COURT HOUSE ...FUEL/GAS PURCHASES :
(All Departments)
FROM DATE: 06-01-2019
THROUGH DATE: 06-30-2019
GALLONS: 111.10
TOTAL: $ 263.88

FRC HWY: km

What is BASE ONE®?

BASE ONE® is a concentrated liquid stabilizing agent, that is incorporated with water to produce a homogeneous base layer with enhanced characteristics for STRENGTH, STABILITY, and DURABILITY.

Improvements to STRENGTH and STABILITY translate into improved performance of the supported pavement structures.

BASE ONE® is:

- Patented*
- Safe
- Easy to use
- Economical - 12¢ per square yard per inch stabilized

Team Lab recommends always using the proper personal protective equipment when handling any chemicals.

*Patent No. 7,651,294, 7,845,879, and 7,898,731

How Does BASE ONE® Work?

- BASE ONE® stabilizes and enhances the base material through its detergency, lubricating, and bonding properties.

- BASE ONE® composition comprises a high concentrated solution of dissolved amorphous silicon dioxide and sodium oxide and other ingredients by weight.

- BASE ONE® will react, release sodium, and bond with elements present in the material and earths soils: calcium, magnesium, iron, aluminum, and other minerals.

- BASE ONE® then dries to form a tough, tightly adhering inorganic INSOLUBLE BOND, resistant to change.

Benefits of Using BASE ONE®

- Increased Resilient Modulus (PSI), Granular Equivalence (GE) or Structural Coefficient numbers per inch of stabilized material.
- Increased base strength.
- Serves as a compaction aid.
- Provides stability to unbound Full Depth Reclamation (FDR) reclaimed asphalt and aggregate materials between final base and paving.
- Provides a good platform for placing pavements.
- Enhances the ability to obtain more uniform density in asphalt.
- Lessens the amount of reflective cracking.
- Helps prevent gravel loss, pot holes, washboarding, and helps reduce blading frequency on aggregate surfaced roadways.
- Very user-friendly, application can be performed in various weather conditions.

General Information

- Application rate for BASE ONE® concentrate is .005 gallons per square yard per inch stabilized.
  - .02 gallons per sq/yd stabilizing 4"
  - .03 gallons per sq/yd stabilizing 6"
  - .04 gallons per sq/yd stabilizing 8"
  - .05 gallons per sq/yd stabilizing 10"
  - .06 gallons per sq/yd stabilizing 12"
- Enough water is needed to uniformly spread the required amount of BASE ONE® over the length, width, and depth of the project. Additional water can be added to bring aggregate material to optimum moisture content for compaction to meet required density.

General Mixing Formula Guidelines

- Formulas listed below are based on the amount of water used for a roadway 24' wide x 5,280' long x 4" deep.

Starting Point Depending on Moisture Content of Material

- Using 12,000 gallons of water for 24' x 5,280' x 4", add 1 gallon of BASE ONE® per 40 gallons of water.

Wetter Material

- Using 8,000 gallons of water for 24' x 5,280' x 4", add 1 gallon of BASE ONE® per 30 gallons of water.

Dryer Material

- Using 16,000 gallons of water for 24' x 5,280' x 4", add 1 gallon of BASE ONE® per 55 gallons of water.

Full Depth Reclamation

- General starting point is 1 gallon of BASE ONE® per 33 gallons of water injected. This adds approximately 1.5% moisture.
- The total amount of water used can vary based on field conditions (moisture content, wind, temp, etc.)

Build a Better Road from the Bottom Up!

Call your local Team Lab Sales Rep for complete lay down instructions.

Team Laboratory Chemical Corp.
PO Box 1467
Detroit Lakes, MN 56502
www.teamlab.net
800-522-8326
Emergency No: Infotrac 800-535-5053

Packaging Available:

- 55 gallon drum
- 275 gallon tote

TEAM LAB

"INNOVATIVE SOLUTIONS"

T15 BASE ONE®

BASE STABILIZER

U.S. Patent #7,651,294, 7,845,879, 7,878,731
Canada Patent #2,584,189

INCREASES BASE STRENGTH
DECREASES AGGREGATE LOSS
REDUCES MAINTENANCE

Signal Word: Warning

Hazard Statements: H315: Causes skin irritation
H319: Causes serious eye irritation

Precautionary Statements - Prevention

P262: Do not get in eyes, on skin, or on clothing.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Other Hazards: Dries to form glass film which can easily cut skin. Can etch glass if not promptly removed.

Precautionary Statements - Response

Inhalation: Remove patient from exposure, keep warm and at rest. Obtain medical attention.

Eye Contact: Irrigate with water for several minutes, remove contacts if present and easy to do. Rinse by holding the eyelids apart for at least 15 minutes. Obtain immediate medical attention.

Skin Contact: Wash affected skin with plenty of water. If symptoms develop, obtain medical attention.

Ingestion: Do not induce vomiting. Wash out mouth with water and give 200-300 ml (half pint) of water to drink. Obtain medical attention.

Precautions Statements - Handling

Avoid contact with eyes, skin, and clothing. Avoid generation of mist.
Provide adequate ventilation. Emergency shower and eye wash facilities should be readily available.

Precautionary Statements - Storage,

Storage temperature 4 - 95 °C.
DO NOT ALLOW MATERIAL TO FREEZE. Provide an incompatibilities adequate bund wall.
Unsuitable containers: Aluminum.

Precautionary Statements - Disposal

Dispose of this material and its container to hazardous or special waste collection point. Disposal should be in accordance with local, state, or national legislation.

BASE ONE® Needed Per Mile

Width	24 feet	26 feet	28 feet	30 feet	32 feet	34 feet	36 feet	38 feet	40 feet
Depth									
4 inches	275	305	330	350	375	400	420	445	470
6 inches	425	460	495	530	565	600	635	670	705
8 inches	565	610	660	705	750	800	845	890	930
10 inches	700	765	825	880	940	1,000	1,060	1120	1180
12 inches	845	915	990	1060	1,130	1,200	1,270	1340	1410

Estimated Water Needed Per Mile

(One gallon BASE ONE® to 40 gallons of water)

Width	24 feet	26 feet	28 feet	30 feet	32 feet	34 feet	36 feet	38 feet	40 feet
Depth									
4 inches	11,000	11,000	13,200	14,000	15,000	16,000	16,800	17,800	18,800
6 inches	17,000	18,400	19,800	21,200	22,600	24,000	25,400	2,680	28,200
8 inches	22,600	24,400	26,400	28,200	30,000	32,000	33,800	35,600	37,200
10 inches	28,000	30,600	33,000	35,200	37,600	40,000	42,400	44,800	47,200
12 inches	33,800	36,600	39,600	42,400	45,200	48,000	50,800	53,600	56,400

BASE ONE® Wetter Material Per Mile

(One gallon BASE ONE® to 30 gallons of water)

Width	24 feet	26 feet	28 feet	30 feet	32 feet	34 feet	36 feet	38 feet	40 feet
Depth									
4 inches	8,250	9,150	9,900	10,500	11,250	12,000	12,600	13,350	14,100
6 inches	12,750	13,800	14,850	15,900	16,950	18,000	19,050	20,100	21,150
8 inches	16,950	18,300	19,800	21,150	22,500	24,000	25,350	26,700	27,900
10 inches	21,000	22,950	24,750	26,400	28,200	30,000	31,800	33,600	35,400
12 inches	25,350	27,450	29,700	31,800	33,900	36,000	38,100	40,200	42,300

NEW CONSTRUCTION AND RECONSTRUCTION PROJECT PROFILES

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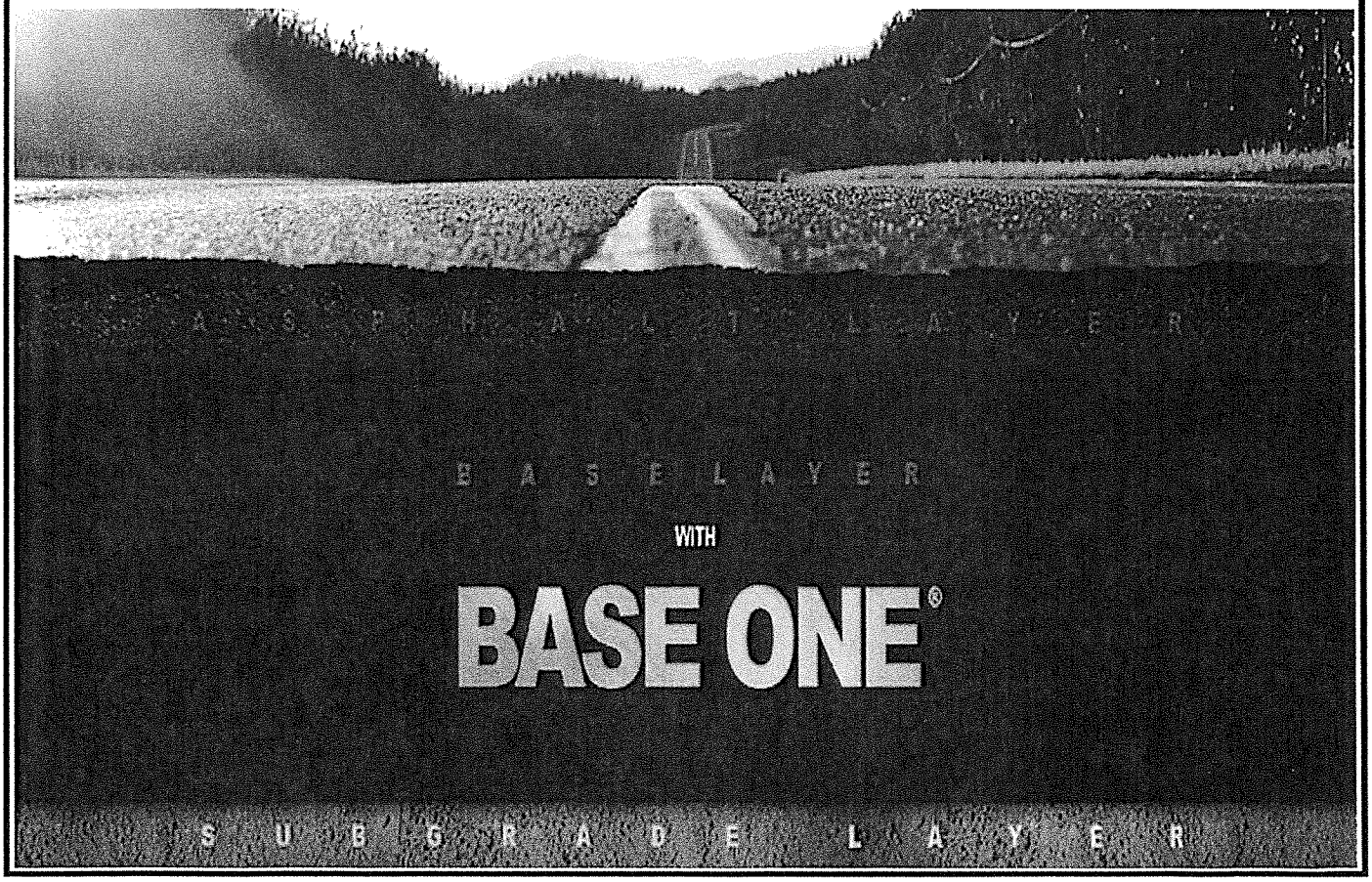
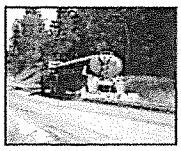
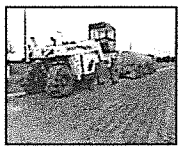
BASE ONE®

BASE STABILIZER



PROJECT PROFILE





BASE ONE®
Base Stabilizer

LOCATION
Mountrail County, ND

PROJECT
BIA #6 Loop

PROJECT TYPE
New Construction

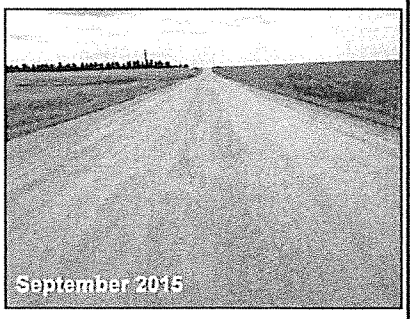
APPLICATION METHOD
Reclaim/Inject BASE ONE®

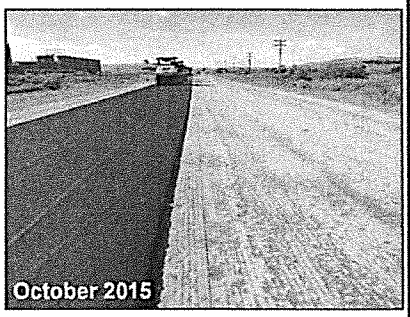
PROJECT DATE
2015

PROJECT DETAIL
BIA #6 original design was 6" of Superpave FAA45 over 18" aggregate base on top of 12" cement treated subgrade (SN=3.96).

A Value Engineering Proposal was accepted with a new design of 6" Superpave FAA45 over 8" stabilized aggregate base with BASE ONE® on top of 12" cement treated base (SN=4.68).

By eliminating 10" of aggregate base, the customer was able to save approximately $2,000,000 on the 11.5 mile project.





American Engineering & Testing, Inc. conducted testing in 2015. Results are as follows:

AASHTO	Design Standards	Test Results With BASE ONE®
Structural Layer Coefficient (Granular Base)	0.06-0.14	0.25
Effective Granular Equivalency (Granular Base)	0.8-1.0	1.8
Resilient Modulus (Granular Base)	15,000-30,000	234,000
Tonnage	10	11.7

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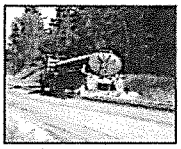
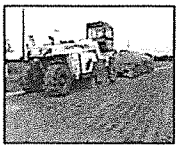
PROJECT PROFILE





BASE ONE®
Base Stabilizer

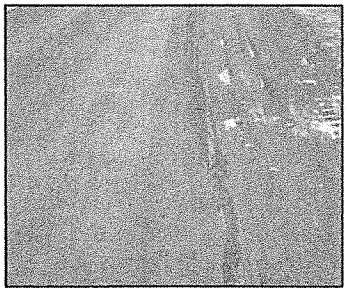
LOCATION
Richland County, ND

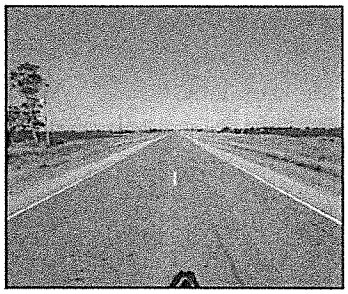
PROJECT
County Road #8

PROJECT TYPE
Reconstruction

APPLICATION METHOD
Blade Mix

PROJECT DATE
2009





PROJECT DETAIL
County stabilized top 6" of new 12" aggregate base with BASE ONE®.
County added 5" bituminous surface.

County was able to omit 3" of aggregate base material by using a structural layer coefficient number given to BASE ONE® through test results. County was able to save $499,500 on the 9 mile project.

American Engineering & Testing, Inc. conducted testing in 2013. Results are as follows:

AASHTO	Design Standards	Test Results With BASE ONE®
Structural Layer Coefficient (Granular Base)	0.06-0.14	.22
Effective Granular Equivalency (Granular Base)	0.8-1.0	1.6
Resilient Modulus (Granular Base)	15,000-30,000	123,000
Tonnage	10	11.9

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STABILIZED
FULL DEPTH RECLAMATION
PROJECT PROFILES

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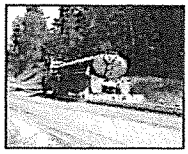
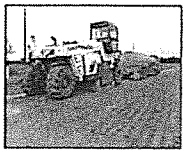
BASE ONE®
BASE STABILIZER

PROJECT PROFILE





BASE ONE®

Base Stabilizer

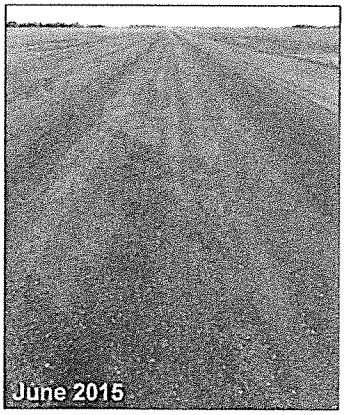
LOCATION
Wilkin County, MN

PROJECT
County Road #8

PROJECT TYPE
Stabilized Full Depth Reclamation

APPLICATION METHOD
Reclaim/Inject BASE ONE®

PROJECT DATE
2015

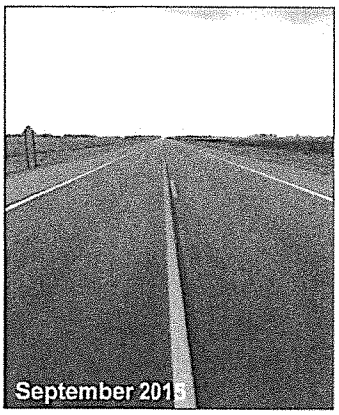


PROJECT DETAIL
Fall 2014 - Reclaimed 8" material.

Summer 2015 - Reclaimed and injected BASE ONE® into the 8".

Summer 2015 - Added 3" Class 5 and stabilized with BASE ONE®.

2015 - Added 5.5" bituminous.
**By stabilizing 8" SFDR and the 3" additional Class 5 with BASE ONE® the county was able to reduce the pavement thickness, a savings of $580,000 on the 10 mile project.



American Engineering & Testing, Inc. conducted testing in Spring 2015 (Without BASE ONE®) and Spring 2016 (With BASE ONE®). Results are as follows:

AASHTO	Design Standards	Test Results	
		Without BASE ONE®	With BASE ONE®
Structural Layer Coefficient (Granular Base)	0.06-0.14	0.13	0.24
Resilient Modulus (Granular Base)	15,000-30,000	14,000	110,000
Effective Granular Equivalency (Granular Base)	0.8-1.0	1.0	1.7
Tonnage	10	5.6	15.7

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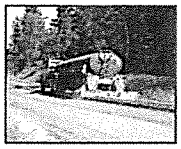
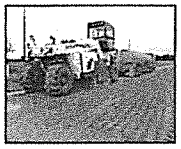
PROJECT PROFILE





BASE ONE®

Base Stabilizer

LOCATION
Mahnomen County, MN

PROJECT
CSAH #4

PROJECT TYPE
Stabilized Full Depth Reclamation

APPLICATION METHOD
Reclaim/Inject BASE ONE®

PROJECT DATE
2015

PROJECT DETAIL
County reclaimed/injected BASE ONE® in 7" of reclaimed material.
Added 4" bituminous surface.

American Engineering & Testing, Inc. conducted testing in 2016. Results are as follows:

AASHTO	Design Standards	Test Results With BASE ONE®
Structural Layer Coefficient (Granular Base)	0.06-0.14	0.22
Effective Granular Equivalency (Granular Base)	0.8-1.0	1.6
Resilient Modulus (Granular Base)	15,000-30,000	127,000
Tonnage	9	13.3

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CHIP SEAL
PROJECT PROFILES

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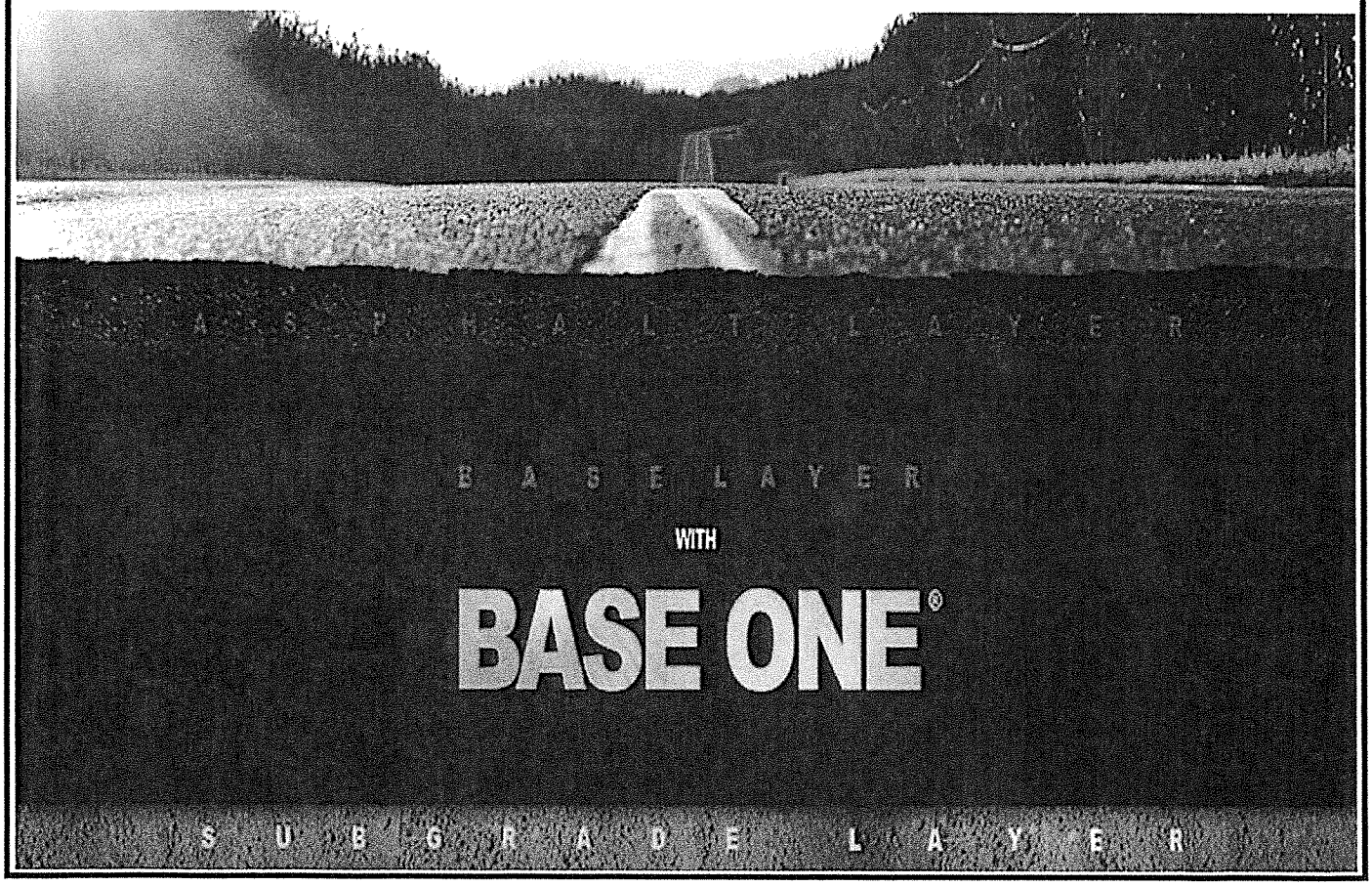
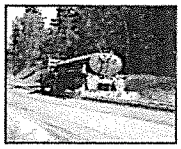
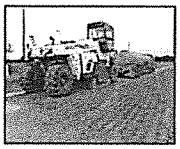
BASE ONE®
BASE STABILIZER



PROJECT PROFILE





BASE ONE®

Base Stabilizer

LOCATION
Pettis County, MO

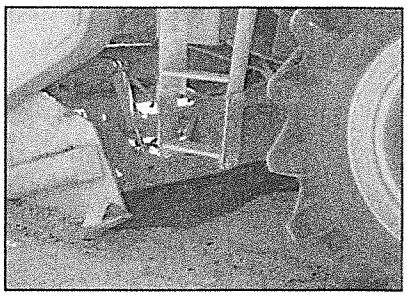
PROJECT
Sneed Rd.

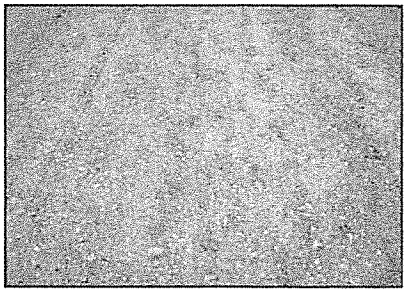
PROJECT TYPE
Stabilized Full Depth Reclamation

APPLICATION METHOD
Reclaim/Inject BASE ONE®

PROJECT DATE
2016

PROJECT DETAIL
Reclaimed existing chip seal and base 8".
Reclaimed/injected BASE ONE® 3" in depth.
Added a 1" chip seal surface.





American Engineering & Testing, Inc. conducted testing in 2017. Results are as follows:

AASHTO	Design Standards	Test Results With BASE ONE®
Structural Layer Coefficient (Granular Base)	0.06-0.14	0.22
Resilient Modulus (Granular Base)	15,000-30,000	110,000
Tonnage		7.9

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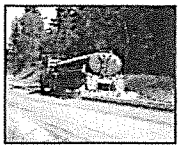
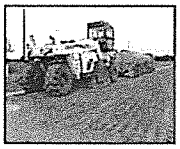
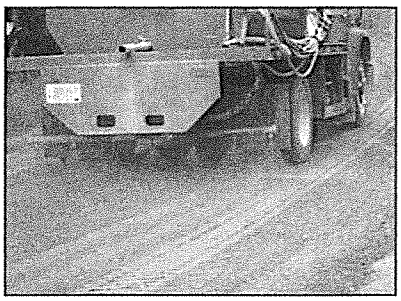
PROJECT PROFILE





BASE ONE®
Base Stabilizer



LOCATION
Township

PROJECT
Deroxe Road

PROJECT TYPE
Base Stabilization / Otta Seal & Chip Seal

APPLICATION
Blade Mix/Spray Truck

PROJECT DATE
2010

PROJECT DETAILS

Added 4" of new base material
Stabilized top 4" with BASE ONE®
Applied an Otta Seal surface treatment
Added a chip seal the following year

Bid to add base material and place a bituminous surface on this section was $299,000.
The stabilized base and Otta Seal/Chip Seal cost $115,000,saving the township $184,000.

AASHTO	Design Standards	Test Results With BASE ONE®
Structural Layer Coefficient (Granular Base)	0.06-0.14	0.20
Effective Granular Equivalency (Granular Base)	0.8-1.0	1.5
Resilient Modulus (Granular Base)	15,000-30,000	99,000
Tonnage		8.7

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GRAVEL ROAD
PROJECT PROFILES

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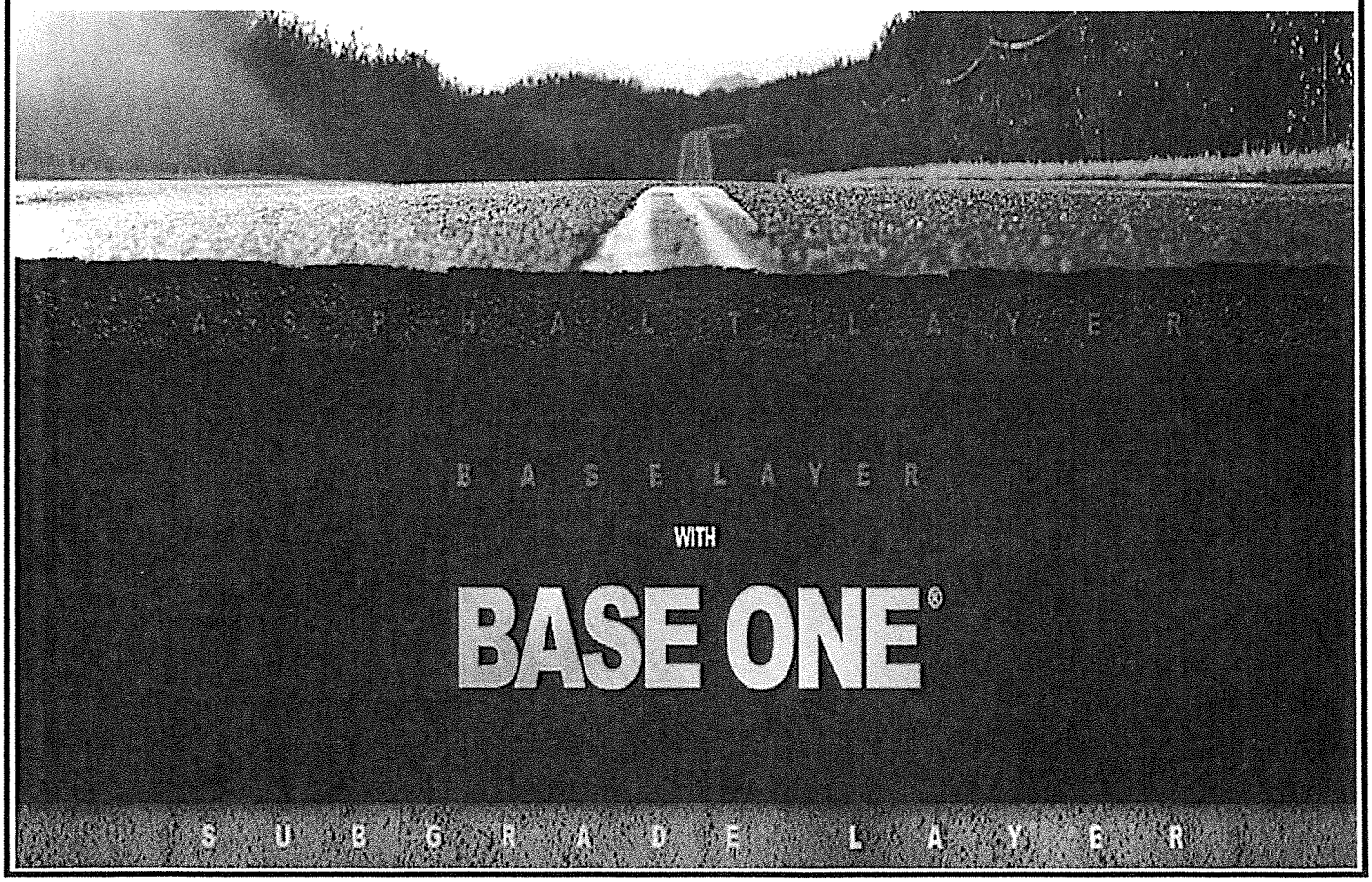
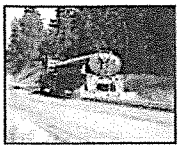
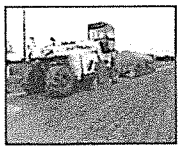
BASE ONE®

BASE STABILIZER

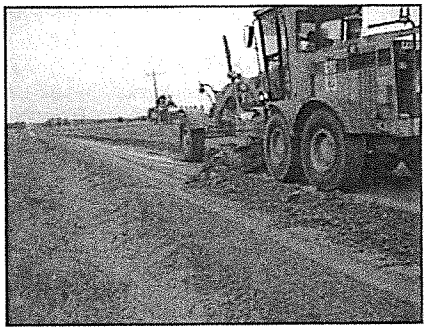






BASE ONE®

Base Stabilizer



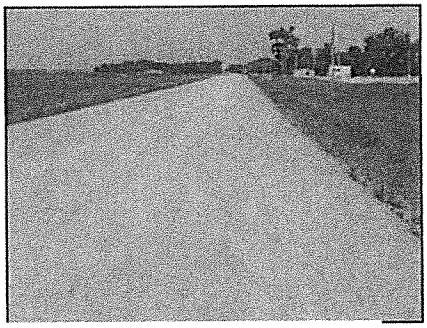
LOCATION
Polk County, MN

PROJECT

PROJECT TYPE
Gravel Surface Stabilization

APPLICATION METHOD
Blade Mix

PROJECT DATE



PROJECT DETAIL
Polk County Engineer Rich Sanders started a 5 year gravel stabilization program several years ago.

County requested bids to have 15 - 20 miles of gravel road per year stabilized with BASE ONE®.

Each project mile selected gets 4" of new Class 5 Modified aggregate base material that is stabilized with BASE ONE®.

Goal: To reduce the regraveling cycles and annual blading maintenance.

Successful Results:

- Polk County was able to skip a regraveling cycle in 2018 on the projects stabilized with BASE ONE®, saving the county over $150,000 in 2018.
- Blading was reduced to one time per month vs one time per week, saving the county wear and tear on equipment.
- Gravel roads that were impassable, muddy, and sloppy in the spring are now nice stabilized gravel roads.

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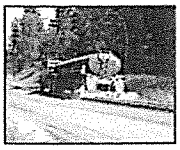
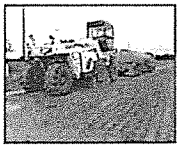
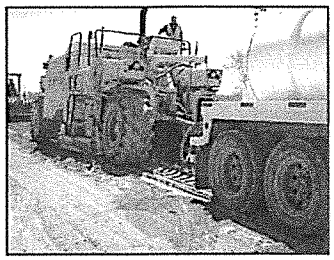
PROJECT PROFILE





BASE ONE®

Base Stabilizer



LOCATION
Cass County, ND

PROJECT
Cass County #3

PROJECT TYPE
11.4 Mile Gravel Road Stabilization

APPLICATION METHOD
Reclaim/Inject BASE ONE®

PROJECT DATE
2016

PROJECT DETAIL
The county first installed drain tile a couple of years ago to address the subgrade moisture issues. This increased performance somewhat, but they still had structural issues. The county mixed in 5.5% of Portland cement into 12" of the subgrade just above the drain tile to address the subgrade issues. To increase performance of the driving surface, the county reclaimed/injected BASE ONE® in 4.5" of ND Modified Class 13 aggregate surface material. A light coat of chloride was added to the surface to minimize dust.

American Engineering & Testing, Inc. conducted testing in June 2017. Test results are as follows:

AASHTO	Design Standards	Test Results With BASE ONE®	Test Results With Soil Cement
Structural Layer Coefficient (Granular Base) with BASE ONE®	0.06-0.14	0.22	
Resilient Modulus (Granular Base) with BASE ONE®	15,000-30,000	114,000	
Structural Layer Coefficient (Soil Cement Subgrade)	0.12-0.18		0.17
Resilient Modulus (Soil Cement Subgrade)	15,000		51,000
Tonnage		11.8	11.8

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Approximate Cost of Stabilizing Agents

Treating a Road 5,280 ft. L X 28 ft. W x 6 in. D

Stabilizing Agents Pricing Reflecting September 2017		
Stabilizing Agent	**Est. Cost Per Sq. Yd. Per Inch Deep**	**Cost Per Mile Product Only 5280 ft. L x 28 ft. W x 6 in. D**
Cement 3%	0.33 Per Sq. Yd. Per Inch Deep	$32,524.80
Cement 6%	0.53 Per Sq. Yd. Per Inch Deep	$52,236.80
Emulsion 3.5%	0.82 Per Sq. Yd. Per Inch Deep	$80,819.20
Emulsion 4.5%	0.99 Per Sq. Yd. Per Inch Deep	$97,574.40
Foamed Asphalt 2.3%	0.64 Per Sq. Yd. Per Inch Deep	$63,078.40
Foamed Asphalt 3%	0.78 Per Sq. Yd. Per Inch Deep	$76,876.80
BASE ONE®	0.12 Per Sq. Yd. Per Inch Deep	**$11,827.20**

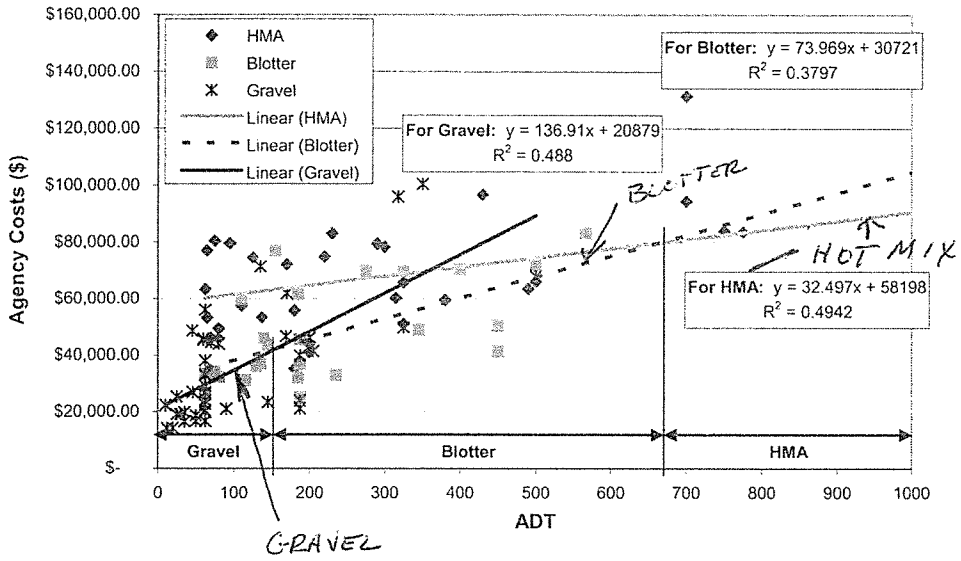


Figure 5-2. Default 20-year agency cost models (per mile).

An assessment of the default models resulted in several observations that might enhance the results of this study if investigated further. For instance, the linear regression models reflected in figure 5-2 have reasonable coefficients of determination (R^2), but these could be improved by collecting more data to better account for the data variability. Also, if agency cost models are ever updated, the SDDOT should consider including snow removal as a maintenance cost. Other studies have shown these costs to be significantly different for the various surface types so the collection of this data and review of its use is warranted if making updates to the models (Rukashaza-Mukome et. al 2003).

In addition to the development of default models for estimating agency costs, models were developed to depict the relationship between vehicle operating costs and ADT. These costs represent the differences in the wear and tear on a vehicle associated with driving on various roadway surfaces. Figure 5-3 displays the vehicle operating cost per mile of roadway for roads with ADT values of 0 to 1000 vehicles per day. The default models have R^2 values of 0.94 or higher, which indicate a strong correlation between vehicle operating cost and ADT. As expected, the vehicle operating costs are lowest on HMA-surfaced roadway and continue to increase for blotter, stabilized gravel and gravel surfaces, respectively.

Appendix D:

When to Pave a Gravel Road*

by Kentucky Transportation Center, University of Kentucky at Lexington, KY

Contents

*Gravel as used here may refer to sand and gravel, or to crushed stone.

A Word about the Term "Paved"

What is meant by a "paved" road? For some, a light chip seal coat is considered paving. For others, paving is four or more inches of bituminous asphalt or "hot mix." The primary purpose of a pavement is to protect the subgrade. As the loads get heavier, the pavement thickness must be increased.

Generally speaking, bituminous concrete (hot mix asphalt) has little real load-bearing capacity of its own until it reaches a thickness of 2 inches. In fact, the Asphalt Institute has a firm policy of recommending a minimum pavement thickness of 4 inches full depth asphalt or 3 inches asphaltic concrete plus a suitable granular base even for low volume roads. Their research shows that 4 inches of hot mix will carry about 10 times as much traffic as 2 inches of hot mix when constructed over thin granular bases.

A pavement less than two inches thick primarily protects the base materials by shedding water and providing a smooth riding surface. Such a road is more properly called a surface treated road. Roads with thin pavements must have excellent drainage designed into them and be diligently maintained throughout their service life.

In this paper we will consider even a light surface treatment as paving, however. The assumption is that, when a town first applies a chip seal treatment, for example, it has taken a first step toward eventually achieving a load-bearing pavement.

Introduction

Two-thirds of the highway systems in the United States and more than 90 percent of all the roads in the world are unsurfaced or lightly surfaced low volume roads. In Kentucky, more than 19,000 miles of local roads have gravel surfaces. Most local roads were not designed with the same considerations used in the design of state and interstate highways.

Most have evolved from primitive trails. Paths of least resistance first created by wild animals were later used by settlers. As needs and traffic increased, these traveled ways became roads which were gradually improved with gravel or crushed rock. Little engineering went into these improvements. Using available materials and "keeping them out of the mud" were the extent of efforts to maintain a road.

As paving occurred, the tendency was to make minor modifications to the foundations of the evolved road and to seal or pave the surface. As a result,many low volume roads in Kentucky now have continual maintenance problems because of inadequate base support in addition to alignment and drainage problems.

To add to the problem, roads throughout Kentucky are experiencing ever-increasing weights and volumes of traffic. Population growth and tourism make traffic demands. Coal trucks and other commercial vehicles are carrying heavier loads than ever before. These higher volumes and greater weights are putting a steadily increasing strain on local road maintenance and reconstruction budgets.

Gravel or Paved: A Matter of Trade-offs

The decision to pave is a matter of trade-offs. Paving helps to seal the surface from rainfall, and thus protects the base and subgrade material. It eliminates dust problems, has high user acceptance because of increased smoothness, and can accommodate many types of vehicles such as tractor-trailers that do not operate as effectively on unsurfaced roads.

In spite of the benefits of paved roads, well-maintained gravel roads are an effective alternative. In fact, some local agencies are reverting to gravel roads. Gravel roads have the advantage of lower construction and sometimes lower maintenance costs. They may be easier to maintain, requiring less equipment and possibly lower operator skill levels. Potholes can be patched more effectively. Gravel roads generate lower speeds than paved surfaces. Another advantage of the unpaved road is its forgiveness of external forces. For example, today vehicles with gross weights of 100,000 pounds or more operate on Kentucky's local roads. Such vehicles would damage a lightly paved road so as to require resealing, or even reconstruction. The damage on a gravel road would be much easier and less expensive to correct.

There is nothing wrong with a good gravel road. Properly maintained, a gravel road can serve general traffic adequately for many years.

Should We Pave This Gravel Road? A Ten Part Answer

When a local government considers paving a road, it is usually with a view toward reducing road maintenance costs and providing a smooth riding surface. But is paving always the right answer? After all, paving is expensive. How does a county or city know it is making the most cost-effective decision?

We will consider ten answers to the question, "Should we pave this gravel road?" In fact they are ten parts of one answer. If one of the ten is not considered, the final decision may not be complete. The ten answers taken together provide a framework for careful decision making.

Answer 1: After Developing a Road Management Program

If the road being considered for paving does not fit into a countywide road improvement program, it is quite possible that funds will not be used to the fullest advantage. The goal of a road management system is to improve all roads or streets by using good management practices. A particular road is only one of many in the road system.

A road management system is a common sense, step-by-step approach to scheduling and budgeting for road maintenance work. It consists of surveying the mileage and condition of all roads in the system, establishing short-term and long-term maintenance goals and prioritizing road projects according to budget constraints.

A road management system helps the agency develop its road budget and allows the use of dollars wisely because its priorities and needs are clearly defined.

Through roadway management, local governments can determine the most cost-effective, long-term treatments for their roads, control their road maintenance costs, and spend tax dollars more wisely. Local governments that stick with the program will be rewarded with roads that are easier and less costly to maintain on a yearly basis. Pertinent information about all roads will be readily available for years to come instead of scattered among files or tucked away in an employee's head.

Steps in a Road Management Program:

1. Inventory the roads. The amount of time available and the miles of road in a county or city will determine how much detail to go into.

2. Assess the condition of the roads. Develop simple and easy techniques to use each year. Maintain a continuing record of the assessed condition of each road so that changes in condition can be noted easily and quickly.

3. Select a road management plan. Select the most appropriate treatment to repair each road, bridge, or problem area.

4. Determine overall needs. Estimate the cost of each repair job using generalized average costs and tally up the total. Establish long-range goals and objectives that in turn will help the agency justify its budget requests.

5. Establish priorities. Keep good roads in good shape (preventive maintenance) and establish a separate budget, or request a temporary increase, to reconstruct really bad roads.

Answer 2: When the Local Agency Is Committed to Effective Management

A commitment to effective management is an attitude. It is a matter of making sure that taxpayers' money is well spent—as if it were one's own money. It does not mean paving streets with gold but it does mean using the best materials available. It does not mean taking short cuts resulting in a shoddy project but it does mean using correct construction techniques and quality control. A commitment to effective management means planning for 5 or even 10 years instead of putting a band-aid on today's problem. It means taking the time to do things right the first time and constructing projects to last.

Consider a child's tree house compared to a typical three bedroom house in a Kentucky town. Because each protects people from the wind and rain each comes under the definition of a shelter. However, the tree house was built with available materials and little craftsmanship. The other was planned, has a foundation, sound walls, a roof, and with care, can last hundreds of years. One is a shack and the other is a family dwelling. Only one was built with a commitment to excellence.

Many roads are like the tree house. They qualify under the definition but they are not built to last.

The horse and buggy days are over. We are in an age of travelers' demands, increasing traffic, declining revenues and taxpayer revolts. We are expected to do more with less. Building roads to last requires an attitude of excellence. Such an attitude helps to make better decisions, saves money in the long run, and results in a better overall road system.

Answer 3: When Traffic Demands It

The life of a road is affected by the number of vehicles and the weight of the vehicles using it. Generally speaking, the more vehicles using a road, the faster it will deteriorate.

The average daily traffic volumes (ADT) used to justify paving generally range from a low of 50 vehicles per day to 400 or 500. When traffic volumes reach this range, serious consideration should be given to some kind of paving.

Traffic volumes alone are merely guides. Types of traffic should also be considered. Different types of traffic (and drivers) make different demands on roads. Will the road be used primarily by standard passenger cars or will it be a connecting road with considerable truck traffic? Overloaded trucks are most damaging to paved roads.

The functional importance of the highway should also be considered. Generally speaking, if the road is a major road, it probably should be paved before residential or side roads are paved. On the other hand, a residential street may be economically sealed or paved while a road with heavy truck usage may best be surfaced with gravel and left unpaved until sufficient funds are available to place a thick load-bearing pavement on the road.

Answer 4: After Standards Have Been Adopted

Written standards in the areas of design, construction and maintenance define the level of service we hope to achieve. They are goals to aim for. Without written standards there is no common understanding about what a local government is striving for in road design, construction and maintenance. In deciding to pave a gravel road, is the local government confident it would be achieving the desired standards?

Design and construction standards do not have to be complex. It takes only a few pages to outline such things as right-of-way width, traveled way width, depth of base, drainage considerations (such as specifying minimum 18"culvert pipe),types of surfacing and the like.

Maintenance standards address the need for planned periodic maintenance. A good maintenance plan protects local roads, which for most counties represents many millions of dollars of investment. It also is an excellent aid when it comes time to create a budget.

Considerations include: How often shall new gravel be applied to a gravel road? (Some roads require it more than others do.) How many times per year are roads to be graded? How often and in what locations should calcium chloride or other road stabilizers be applied? What is our plan for checking road signs? (Because of legal liability, a missing sign can be very costly if not replaced.) What is our plan for ditching and shouldering?

Answer 5: After Considering Safety and Design

Paving a road tempts drivers to drive faster. As speed increases, the road must be straighter, wider, and as free as possible from obstructions for it to be safe. Paving low volume roads before correcting safety and design inadequacies encourages speeds which are unsafe, especially when the inadequacies "surprise" the driver. Because of the vast mileage of low volume roads, it is difficult to reduce speeds by enforcement.

Roads must be designed to provide safe travel for the expected volume at the design speed. To do this a number of physical features must be considered:

- Sight Distance
- Alignment and Curves
- Lane Width
- Design Speed
- Surface Friction
- Superelevation

It may be necessary to remove trees or other obstructions such as boulders from the road's edge. Some engineers insist that no road should be paved that is less than 22 feet wide. If this standard is accepted, gravel roads must be widened before paving. Bridges may need widening. Considering these and other safety and design factors in the early stages of decision making can help to achieve the most economical road and one that will meet transportation needs. It makes no sense to pave a gravel road which is poorly designed and hazardous.

Answer 6: After the Base and Drainage Are Improved

"Build up the road base and improve drainage before paving." This cardinal rule cannot be stressed enough. If the foundation fails, the pavement fails. If water is not drained away from the road, the pavement fails. Paving a road with poor base or with inadequate drainage is a waste of money. It is far more important to ask, "Does this road need strengthening and drainage work?" than it is to ask, "Should we pave this gravel road?"

Soil is the foundation of the road and, as such, it is the most important part of the road structure. A basic knowledge of soil characteristics in the area is very helpful and can help avoid failures and unneeded expense. Soils vary throughout the country. For highway construction in general, the most important properties of a soil are its size grading, its plasticity, and its optimum moisture content.

There is a substantial difference in the type of crushed stone or gravel used for a gravel road-riding surface versus that used as a base under a pavement. The gravel road surface needs to have more fines plus some plasticity to bind it together, make it drain quicker and create a hard riding surface. Such material is an inferior base for pavement. If pavement is laid over such material, it traps water in the base. The high fines and the plasticity of the material make the wet base soft. The result is premature pavement failure.

Answer 7: After Determining the Costs of Road Preparation

The decision to pave a gravel road is ultimately an economic one. Policy makers want to know when it becomes economical to pave.

There are two categories of costs to consider: total road costs and maintenance costs.

Local government needs to determine what the costs are to prepare a road for paving. Road preparation costs are the costs of construction before paving actually takes place.

For example, if standards call for a traveling surface of 22 feet and shoulders of two feet for a paved road, the costs of new material must be calculated. Removing trees, brush or boulders, adding new culverts or other drainage improvements, straightening a dangerous curve, improving slopes and elevations, constructing new guardrails, upgrading signs and making other preparations – all must be estimated.

Costs will vary greatly from project to project depending on topography, types of soils, availability of good crushed stone or gravel, traffic demands and other factors. One important factor is the standards. That is one reason why we should carefully consider what is contained in the road policy (#4 above). For larger projects it may be desirable to hire an engineering consulting firm (another cost) to design the road and make cost estimations. For smaller projects construction costs can be fairly closely calculated by adding the estimated costs of materials, equipment and labor required to complete the job.

Answer 8: After Comparing Pavement Costs, Pavement Life and Maintenance Costs

A second financial consideration is to compare maintenance costs of a paved road to maintenance costs of a gravel road. To make a realistic comparison we must estimate the years of pavement life (how long the pavement will be of service before it requires treatment or overlay) and the actual cost of paving. It is at this point that we can begin to actually compare costs between the two types of roads.

Consider the following maintenance options:

A. For both paved and gravel roads, a local government must: maintain shoulders – keep ditches clean – clean culverts regularly – maintain roadsides (brush, grass, etc.) – replace signs and signposts.
B. PAVED roadways require: patching – resealing (chip, slurry, crack seal) and striping.
C. GRAVEL roadways require: regraveling – grading and stabilization of soils or dust control.

Since the maintenance options in "A" are common to both paved and gravel roads, they do not have to be considered when comparing maintenance costs. These costs for either type of road should be about the same. But the costs of the maintenance options in "B" and "C" are different and therefore should be compared.

Figure 17 shows costs for maintaining gravel roads over a 6-year period in a hypothetical situation.If records of costs are not readily available, you may use a "best guess" allowing for annual inflation costs.

Three paving options are listed in Figure 18. Each includes estimated costs for paving and an estimated pavement life. You should obtain up-to-date cost estimates and expected pavement life figures for these and other paving options by talking to your State department of transportation, contractors, and neighboring towns and counties.

YEAR	1	2	3	4	5	6	TOTALS
GRADING							
Equipment	270	280	290	300	310	320	1,770
Labor	90	100	110	120	130	140	690
REGRAVEL							
Materials	-	-	4,000	-	-	-	4,000
Equipment	-	-	2,500	-	-	-	2,500
Labor	-	-	2,300	-	-	-	2,300
STABALIZATION/DUST CONTROL							
Materials	800	900	1,200	920	950	975	5,745
Equipment	30	35	70	40	50	60	285
Labor	100	110	150	125	140	150	775
Totals	1,290	1,425	10,620	1,505	1,580	1,645	$18,065

FIGURE 17: Gravel Road Maintenance Cost Per Mile

Let's consider the cost of a double surface treatment operation and the projected cost of maintaining it before anything major has to be done to the pavement (end of pavement life). We see in Figure 18 that the estimated cost to double surface treat one mile of road is $20,533. Estimated maintenance costs over a six-year period could be:

Patching . . .	$1,800	Total maintenance	$4,300
Striping	$500	Construction.	$20,533
Sealing	$2,000	Total cost over six years	$24,833
	$4,300		

When we compare this cost to the cost of maintaining an average mile of gravel road over the same period of six years ($18,065), we find a difference in dollar costs of $6,768. It is not cost beneficial to pave in this hypothetical example, even without considering the costs of road preparation (#7). This is not a foolproof method, but it does give us a handle on relative maintenance costs in relation to paving costs and pavement life. The more accurate the information, the more accurate the comparisons will be. The same method can be used in helping to make the decision to turn paved roads back to gravel.

Option	Life	Cost Per Mile	Cost/Mile Per Year	Calculations	Maintenance Per Mile/Year
Chip Seal-Double Surface Treatment	6 yrs.	$20,533	$3,422	Based on price of $1.75 per sy; 20 ft. wide x 5,280 ft. = 105,600 sf 105,600 sf ÷ 9 = 11,733 sy 5 $1.75 = $20,533	?
Bituminous Concrete-Hot Mix	12 yrs.	$58,080	$4,840	Based on estimated price of $30 per ton; 1 sy of stone and hot mix/ cold mix 1" thick weighs about 110 lbs. Therefore 3" = 330 lbs. per sy. 11,733 sy (1 mile of pavement) 5 330 lbs. = 3,871,890 lbs. 3,871,890 lbs. = 1936T x $30 = $58,080	?
Cold Mix	8 yrs.	$48,390	$6,048	At $30 per ton, using same formula as hot mix, 2 1/2" of cold mix equals 1,613T 5 $30 = $48,390	?

*These costs must be determined before any conclusions can be reached regarding the most cost-effective pavement method. The thinner the pavement, the greater the maintenance cost. Traffic, weather conditions, proper preparation before paving and many other factors can affect maintenance costs. No Kentucky data exists upon which to base estimates of maintenance costs on low volume roads of these paving options; and, therefore, we offer no conclusion as to the "best" way to pave.

FIGURE 18: Paving Options (Costs and road life are estimates and may vary)

Answer 9: After Comparing User Costs

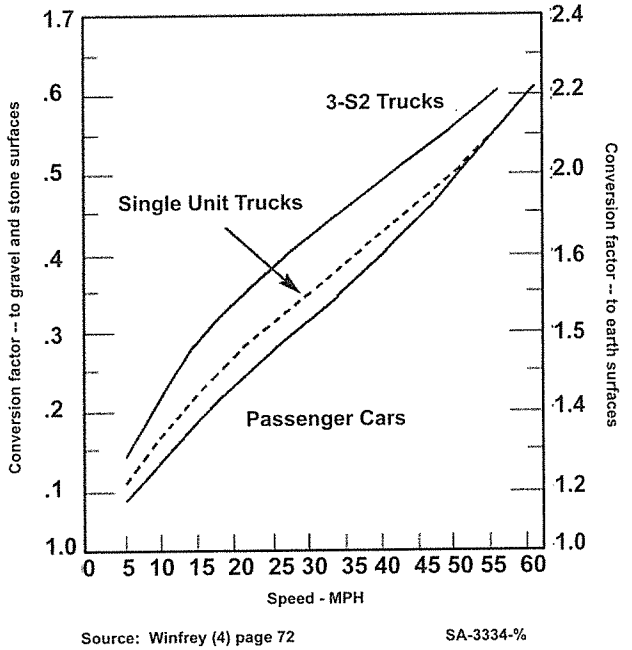
Not all road costs are reflected in a highway budget. There is a significant difference in the cost to the user between driving on a gravel surface and on a paved surface. User costs, therefore, are appropriate to consider in the pave/not pave decision. By including vehicle-operating costs with construction and maintenance costs, a more comprehensive total cost can be derived.

Vehicles cost more to operate on gravel surfaces than on paved surfaces, often 2 or 3 times greater than for bituminous concrete roads in the same locations. There is greater rolling resistance and less traction which increase fuel consumption. The roughness of the surface contributes to additional tire wear and influences maintenance and repair expenses. Dust causes extra engine wear, oil consumption and maintenance costs. Figure 19 from AASHTO'S "A Manual on User Benefit Analysis of Highway and Bus-Transit Improvements" shows the impacts of gravel surfaces on user costs. For example, an average running speed of 40 MPH on a gravel surface will increase the user costs of passenger cars by 40% (1.4 conversion factor). The general public is not aware that their costs would actually be less if some of these roads were surface treated.

Add to the gravel road maintenance the user costs over a 6-year period. Estimate an average daily traffic (ADT) of 100 cars and 50 single unit trucks, traveling at 40 mph. Estimate that it costs $.25 per mile to operate the vehicles on pavement. Using the chart in Figure 3, we see it costs 1.4 times as much (or $.35) to drive a car 40 mph one mile on gravel road and 1.43 times as much (or $.36) to drive a single unit (straight frame) truck 40 mph one mile on gravel road.

100 cars x 365 days x $.10 added cost x 1 mile = $3,650
50 trucks x 365 days x $.11 added cost x 1 mile = $2,008

User costs for the gravel road is $5,659 per year or $33,954 for a 6-year period. Assuming we still do not consider road preparation costs, it now appears justified to pave the road. Such an approach can be used to establish a "rule of thumb" ADT. For example, some agencies give serious consideration to paving roads with an ADT above 125.



Source: Winfrey (4) page 72 SA-3334-%

To use this chart, determine the type of vehicle, the speed and the type of road surface. Follow the speed line vertically to the vehicle type. Go horizontally to multiplier factor of road surface. Multiply the cost of travelling on a paved surface by this number to determine the cost of operating the same vehicle on gravel surface or dirt surface. Example: If it costs 28¢ per mile to operate a passenger car* at 40 mph on pavement, it will cost 39¢ per mile to operate it on a gravel road at the same speed and 50¢ per mile on a dirt road.

*1984 Federal Highway Administration Statistics quotes an operating cost of 28¢ per mile for an intermediate size passenger car traveling on average suburban pavement. You must determine your own vehicle operating costs on pavement in order to use these multiplicative factors to calculate. Public opinion as to whether to pave a road can be revealing, but it should not be relied upon to the exclusion of any one of points 1-9 already discussed. If a decision to pave is not based on facts, it can be very costly. Public opinion should not be ignored, of course, but there is an obligation by government leaders to inform the public about other important factors before making the decision to pave.

FIGURE 19: Impacts of Gravel Surfaces on User Costs

Answer 10: After Weighing Public Opinion

Public opinion as to whether to pave a road can be revealing, but it should not be relied upon to the exclusion of any one of points 1-9 already discussed. If a decision to pave is not based on facts, it can be very costly. Public opinion should not be ignored, of course, but there is an obligation by government leaders to inform the public about other important factors before making the decision to pave.

Stage Construction

Local government may consider using "stage construction design" as an approach to improving roads. This is how it works. A design is prepared for the completed road, from base and drainage to completed paving. Rather than accomplishing all the work in one season, the construction is spread out over 3- to 5-years. Paving occurs only after the base and drainage have been proven over approximately 1 year. Crushed gravel treated with calcium chloride serves as the wearing course for the interim period. Once all weak spots have been repaired, the road can be shaped for paving.

There are some advantages to keeping a road open to traffic for one or more seasons before paving:

1. Weak spots that show up in the sub-grade or base can be corrected before the hard surface is applied, eliminating later expensive repair;
2. Risky late season paving is eliminated;
3. More mileage is improved sooner;
4. The cost of construction is spread over several years.

Note: Advantages may disappear if timely maintenance is not performed. Surface may deteriorate more rapidly because it is thinner than a designed pavement.

Summary

Some local roads are not well engineered. Today, larger volumes of heavy trucks and other vehicles are weakening them at a fast rate. Paving roads as a sole means of improving them without considering other factors is almost always a costly mistake. Counties and cities should consider these ten points first. Carefully considering them will help to assure local government officials that they are making the right decision about paving a gravel road.

[EXT] Fall River County Commsioners Meeting Agenda Request

Laura Shull <laura@hsenviro.net>

Thu 7/11/2019 2:16 PM

To:Ganje, Sue <Sue.Ganje@state.sd.us>;

Cc:rachel shull <rachel@hsenviro.net>;

1 attachment

resolutionFallRiver.pdf;

We would like to be added to the agenda for the next meeting. Below is some information regarding H&S Environmental Services for your review, if there are any questions or any additional information you would like before the meeting, please contact me via email or phone. The state has provided a template resolution for the processing and transfer station, we have attached this for your consideration.

H&S Environmental Services a South Dakota Incorporated company located in Custer South Dakota is in the process of obtaining the necessary regulatory approval and permits to operate a medical waste treatment and transfer facility to be located in Edgemont, South Dakota. H&S Environmental Services provides treatment and disposal services of healthcare, medical and clinical waste from small quantity generators in South Dakota and surrounding areas. Waste is generally sharps, and other clinical refuse such as dental waste, veterinary waste, tattoo shop waste and other waste from a variety of small scale operations which is treated using steam sterilization. At present the amounts are limited to less than 5 tons per month. The steam sterilization of waste does not produce any atmospheric contaminates and renders all waste received as inert and pathogen free. The operation in Edgemont currently employs one local resident and it is anticipated that up to five local residents will be employed. Waste which is knowingly contaminated with organisms harmful to human or animal health will not be accepted at the site. The local community and county will experience virtually no impact apart from occasional vehicle traffic.

Thank you again and please contact me with any further questions or if any additional informaiton is needed.

Laura Shull
laura@hsenviro.net
605.440.0242

Rachel Shull
rachel@hsenviro.net
605.440.0699

Example of County Resolution

Resolution No. _____

_____ County Commission

WHEREAS, (Company or City) desires to establish a (type & kind) facility for the purpose of solid waste management; and

WHEREAS, the (City, if applicable) has approved siting the proposed facility; and

WHEREAS, the siting of this proposed facility is not in conflict with any established zoning laws or ordinances; and

WHEREAS, (Company or City) has (or will) file(d) a solid waste application with the South Dakota Department of Environment and Natural Resources (DENR); and

WHEREAS, DENR has (or will) review(d) that application to determine that the facility can be operated within the South Dakota laws and regulations; and

WHEREAS, DENR has (or will or may) recommended the approval of the permit with conditions adequate to safeguard the environment; and

WHEREAS, the Board of Minerals and Environment will review, modify, approve, or deny the permit if the tentative recommendations and/or conditions of the permit are contested by any interested party; and

WHEREAS, the County Commission of _____ County is required by South Dakota law SDCL 34A-6-103 to approve of a solid waste facility prior to the issuance of a solid waste permit;

IT IS THEREFORE RESOLVED that the County Commission of _____ County hereby approves construction and operation of the proposed facility to be operated under the terms of a solid waste permit to be issued by the Board of Minerals and Environment.

APPROVED this _____ day of _____, 20___ by the _____ County Commission in regular session at _____.

Signed _____
County Clerk

ACCOUNT DESCRIPTION	GL#	16 ACTUAL	17 ACTUAL	18 ACTUAL	3-YEAR AVERAGE	19 BUDGET	19 YTD ACTUAL	%	20 REQUESTED	20 APPROVED
4110.141 AUDITORS SALARIES	10100X4110141	145,170.06	155,728.40	154,313.10	151,737.19	159,864.00	39,390.08	25		
4120.141 AUDITORS SOC. SECURIT	10100X4120141	11,105.10	11,356.27	11,769.43	11,410.27	12,230.00	3,004.46	25		
4310.141 AUDITORS RETIREMENT	10100X4130141	8,707.70	9,277.18	9,258.77	9,081.22	9,592.00	2,107.64	22		
4140.141 WORKMAN'S COMP	10100X4140141	191.13	155.42	304.64	217.06	.00	.00			
4150.141 AUD HEALTH INS.	10100X4150141	18,199.00	18,754.25	19,298.25	18,750.50	19,872.00	5,505.00	28		
4151.141 REIMB BC/BS	10100X4151141	.00	.00	.00	.00	.00	.00			
4160.141 UNEMPLOYMENT	10100X4160141	.00	.00	.00	.00	.00	.00			
4180.141 AUD DENTAL INS	10100X4180141	2,116.55	2,164.07	2,184.30	2,154.97	2,185.00	606.75	28		
ACCOUNT TYPE TOTALS	41	185,489.54	197,435.59	197,128.49	193,351.21	203,743.00	50,613.93	25		
4210.141 INSURANCE	10100X4210141	169.74	143.80	114.96	142.83	150.00	.00		125	
4241.141 POSTAGE LEASE	10100X4241141	543.72	724.96	745.96	671.55	750.00	188.24	25	700	
4250.141 AUDITORS COPIER	10100X4250141	183.25	.00	1,385.57	522.94	2,100.00	179.27	9	1800	
4260.141 AUDITORS SUPPLY	10100X4260141	7,678.60	6,537.06	5,445.94	6,553.87	7,500.00	1,765.43	24	7500	
4261.141 AUDITOR FAX	10100X4261141	.00	.00	.00	.00	.00	.00			
4263.141 AUDITORS LEASE	10100X4263141	.00	.00	.00	.00	.00	.00			
4265.141 POSTAGE SUPPLY	10100X4265141	1,330.60	1,134.82	1,546.49	1,337.30	1,500.00	185.00	12	1500	

ACCOUNT DESCRIPTION	GL#	16 ACTUAL	17 ACTUAL	18 ACTUAL	3-YEAR AVERAGE	19 BUDGET	19 YTD ACTUAL	%	20 REQUESTED	20 APPROVED
4270.141 AUDITORS TRAVEL	10100X4270141	843.22	940.84	887.07	890.38	1,400.00	175.00	13	1200	
4271.141 VEHICLE MAINTENANCE	10100X4271141	198.00	106.10	24.00	109.37	200.00	.00		200	
4280.141 AUDITORS PHONE	10100X4280141	1,179.61	4,499.86	3,742.47	3,140.65	1,000.00	238.34	24	1000	
4290.141 AUDITOR SALES TAX	10100X4290141	.00	.00	.00	.00	.00	.00			
ACCOUNT TYPE TOTALS	42	12,126.74	14,087.44	13,892.46	13,368.88	14,600.00	2,731.28	19	14025	
4340.141 EQUIPMENT	10100X4340141	.00	463.04	.00	154.35	1,500.00	99.99	7	3000	
ACCOUNT TYPE TOTALS	43	.00	463.04	.00	154.35	1,500.00	99.99	7	3000	
FUND TOTALS	10100	197,616.28	211,986.07	211,020.95	206,874.43	219,843.00	53,445.20	24		
DEPT TOTALS	141	197,616.28	211,986.07	211,020.95	206,874.43	219,843.00	53,445.20	24		

* = BUDGET INCLUDES TRANSFERS AND/OR SUPPLEMENTS

Computer upgrade — bought 2 (1 FR, 1 OL)
Need 3 @ est 750 2250
fax 2 x 4 to suite email 288
2538

Salary = 80 hrs = 13,000
1/2 Elec Salary 19,365
32,365

19365

/19/19 FALL RIVER COUNTY 3+ YEAR BUDGET WORKSHEET ELECTIONS (FR) AS OF APRIL 19 LPBUDW PAGE 4

ACCOUNT DESCRIPTION	GL#	16 ACTUAL	17 ACTUAL	18 ACTUAL	3-YEAR AVERAGE	19 BUDGET	19 YTD ACTUAL	%	20 REQUESTED	20 APPROVED
10.120 ELECTION BD.SALARY	10100X4110120	29,463.47	22,751.47	25,379.61	25,864.85	14,363.00	.00		32,365	
20.120 ELECTION SOCIAL SECUR	10100X4120120	1,341.00	1,188.37	1,086.71	1,205.36	1,100.00	.00		1485	
30.120 RETIREMENT	10100X4130120	1,051.44	553.37	855.04	819.95	862.00	.00		1165	
40.120 WORKMAN'S COMP	10100X4140120	1,407.38	1,398.81	33.85	946.68	20.00	.00			
50.120 ELECT HEALTH INS	10100X4150120	2,100.00	2,278.25	2,144.25	2,174.17	2,208.00	.00			
IMBURSE BLUE CROSS	10100X4151120	.00	.00	.00	.00	.00	.00			
60.120 UNEMPLOYMENT	10100X4160120	.00	.00	.00	.00	.00	.00			
80.120 ELECT DENTAL INS	10100X4180120	270.00	262.93	242.70	258.54	245.00	.00			
ACCOUNT TYPE TOTALS	41	35,633.29	28,433.20	29,742.16	31,269.55	18,798.00	.00			
10.120 INSURANCE	10100X4210120	278.57	287.28	253.81	273.22	300.00	.00		300	
30.120 ELECTION PUBLISHING	10100X4230120	6,596.36	97.94	3,492.04	3,395.45	150.00	25.17	17	3600	
40.120 ELECTION RENTALS	10100X4240120	435.00	.00	50.00	161.67	.00	.00		50	
41.120 POSTAGE LEASE	10100X4241120	.00	181.24	362.48	181.24	200.00	90.62	45	400	
50.120 HAVA MACHINE MAINTAIN	10100X4250120	4,902.00	4,902.00	4,948.00	4,917.33	4,212.00	.00		2170	
51.120 UNITY ONLINE CONTRACT	10100X4251120	.00	.00	.00	.00	.00	.00			
60.120 ELECTION SUPPLIES	10100X4260120	12,333.05	569.82	12,906.47	8,603.11	700.00	4,902.00	700	13000	

ACCOUNT DESCRIPTION	GL#	16 ACTUAL	17 ACTUAL	18 ACTUAL	3-YEAR AVERAGE	19 BUDGET	19 YTD ACTUAL	%	20 REQUESTED	20 APPROVED
61.120 POSTAGE SUPPLY	10100X4261120	838.31	745.29	508.20	697.27	700.00	44.00	6	600	
70.120 TRAVEL	10100X4270120	99.22	159.31	187.87	148.80	400.00	.00		400	
72.120 EARLY VOTING	10100X4272120	.00	.00	42.50	14.17	.00	.00			
91.120 ELECTION TRAINING	10100X4291120	.00	.00	.00	.00	1,000.00	.00		—	
ACCOUNT TYPE TOTALS	42	25,482.51	6,942.88	22,751.37	18,392.25	7,662.00	5,061.79	66	10,420	
40.120 ELECTION EQUIPMENT	10100X4340120	.00	.00	.00	.00	500.00	.00		1000	
ACCOUNT TYPE TOTALS	43	.00	.00	.00	.00	500.00	.00		1000	
FUND TOTALS	10100	61,115.80	35,376.08	52,493.53	49,661.80	26,960.00	5,061.79	19		
DEPT TOTALS	120	61,115.80	35,376.08	52,493.53	49,661.80	26,960.00	5,061.79	19		

= BUDGET INCLUDES TRANSFERS AND/OR SUPPLEMENTS

Increasing Elec Day Wages to keep up w/ min wage — 9.10 in '19
Est 9.35 in '20 (up.25 like '19 incr) 9.35 x 15.5 = 126.23 use 130
9 prec 5 Bd = 45 x 130 = 5850 + 45 x 15 (5x4) = 675
6525 x 2 = 13050.

Computers - purchased 2 lec comp in '19 —
Need laptop + 6 suite + ofc 365
100 + 72 + 750

Election Equip — State paying $39,562 ← (Express Vote; DS450 Tabulator 8 1 unit w/ all co)
Grant applied for 4 AVA $9,000

TimeClock Plus□
by Data Management, Inc.
1 Time Clock Drive, San Angelo, TX 76904
325 223-9500 800 749-8463
sales@timeclockplus.com

Quote	Customer	Quote Date	Tax Exempt Number
474013	279819	07/02/2019	46-6000197

CUSTOMER
Fall River County Julie Tomlinson (605) 745-5130 906 N River St Hot Springs, SD 57747-1346

Rep	Entry	Method of Shipment	Method of Payment
TWEIERSHAU	TWEIERSHAU	N/A	MasterCard

Stock No.	Ordered	Description	Unit Cost	Total
		2019 - 2020 ($2,100.00)		
1026-12311	70	TimeClock Plus Professional Annual Clockable Employee License Renewal	36.00	2,520.00
		└ Multi-Year Discount: 2 Months Free	(6.00)	(420.00)
		2020 - 2021 ($2,100.00)		
1026-12311	70	TimeClock Plus Professional Annual Clockable Employee License Renewal	36.00	2,520.00
		└ Multi-Year Discount: 2 Months Free	(6.00)	(420.00)
		Two Year Hardware Maintenance ($1,694.74)		
1100-250	1	Hardware Maintenance (expedited depot repair) Renewal	1,883.04	1,883.04
		└ Multi Year Discount: 10% Off	(188.30)	(188.30)

Valid for 7 days. Expires 07/09/2019.

Product Total:	6,923.04
Discount:	(1,028.30)
Subtotal:	5,894.74
S & H:	0.00
Total:	5,894.74

RECEIVED
JUL 02 2019
BY:

TimeClock Plus□
by Data Management, Inc.
1 Time Clock Drive, San Angelo, TX 76904
325 223-9500 800 749-8463
sales@timeclockplus.com

Quote	Customer	Quote Date	Tax Exempt Number
473975	279819	07/02/2019	46-6000197

CUSTOMER
Fall River County Julie Tomlinson (605) 745-5130 906 N River St Hot Springs, SD 57747-1346

Rep	Entry	Method of Shipment	Method of Payment
TWEIERSHAU	TWEIERSHAU	N/A	MasterCard

Stock No.	Ordered	Description	Unit Cost	Total
		2019 - 2020 ($2,100.00)		
1026-12311	70	TimeClock Plus Professional Annual Clockable Employee License Renewal	36.00	2,520.00
		└ Multi-Year Discount: 2 Months Free	(6.00)	(420.00)
		2020 - 2021 ($2,100.00)		
1026-12311	70	TimeClock Plus Professional Annual Clockable Employee License Renewal	36.00	2,520.00
		└ Multi-Year Discount: 2 Months Free	(6.00)	(420.00)
		Two Year Hardware Maintenance ($1,899.65)		
1100-250	1	Hardware Maintenance (expedited depot repair) Renewal	2,110.72	2,110.72
		└ Multi Year Discount: 10% Off	(211.07)	(211.07)

Valid for 7 days. Expires 07/09/2019.

Product Total:	7,150.72
Discount:	(1,051.07)
Subtotal:	6,099.65
S & H:	0.00
Total:	6,099.65

TimeClock Plus□
by Data Management, Inc.
1 Time Clock Drive, San Angelo, TX 76904
325 223-9500 800 749-8463
sales@timeclockplus.com

Quote	Customer	Quote Date	Tax Exempt Number
473513	279819	06/21/2019	46-6000197

CUSTOMER
Fall River County Julie Tomlinson (605) 745-5130 906 N River St Hot Springs, SD 57747-1346

Rep	Entry	Method of Shipment	Method of Payment
TWEIERSHAU	TWEIERSHAU	N/A	MasterCard

Stock No.	Ordered	Description	Unit Cost	Total
		2019 - 2020 ($2,100.00)		
1026-12311	70	TimeClock Plus Professional Annual Clockable Employee License Renewal	36.00	2,520.00
		└ Multi-Year Discount: 2 Months Free	(6.00)	(420.00)
		2020 - 2021 ($2,100.00)		
1026-12311	70	TimeClock Plus Professional Annual Clockable Employee License Renewal	36.00	2,520.00
		└ Multi-Year Discount: 2 Months Free	(6.00)	(420.00)

Valid for 7 days. Expires 06/28/2019.

Product Total:	5,040.00
Discount:	(840.00)
Subtotal:	4,200.00
S & H:	0.00
Total:	4,200.00

RECEIVED
JUN 21 2019
BY:

TimeClock Plus□
by Data Management, Inc.
1 Time Clock Drive, San Angelo, TX 76904
325 223-9500 fax: 325 223-9104
sales@timeclockplus.com

Invoice	Customer	Invoice Date	Tax Exempt Number
481527	279819	12/12/2018	46-6000197

BILL TO
Fall River County Julie Tomlinson (605) 745-5130 906 N River St Hot Springs, SD 57747-1346

SHIP TO
Fall River County Julie Tomlinson (605) 745-5130 906 N River St Hot Springs, SD 57747-1346

Rep	Entry	Method of Shipment	Method of Payment	P.O. Number
MHERNANDEZ	CCRABTREE	N/A	Purchase Order Net30	TBD

Stock No.	Ordered	Shipped	Description	Unit Cost	Total
1025-8030	70		TimeClock Plus Professional Annual Employee Licenses	36.00	2,520.00 ✓
1030-779	10		MobileClock for Android and iOS - OnDemand	3.00	30.00
1100-250	1		Hardware Maintenance (expedited depot repair) Renewal (12/20/2018-12/19/2019)	941.52	941.52 ✓

RECEIVED
DEC 13 2018
BY:_____

D0301

IT 10100X4250171

Customer Invoice
This is the ONLY invoice you will receive.

Subtotal:	3,491.52
S & H:	0.00
Total:	3,491.52

Normal Cost

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
North Central Montana District
Division of Oil and Gas
1220 38th Street N
Great Falls, MT 59405
http://www.blm.gov/montana-dakotas

In Reply Refer To:

December 18, 2019 Comp Sale
(MT00200)

July 5, 2019

Dear Surface Managing Agency/Interested Party:

The BLM is conducting an oil and gas lease sale. The preliminary list of parcels and leasing recommendations is posted for your review via the internet on our home page. Please refer to the Montana/Dakotas BLM website at http://on.doi.gov/2gJqg1B. Current and updated information about our EAs, Lease Sale Notices, and corresponding information pertaining to this sale can be found at the link referenced above. Once there, search for the December 18, 2019 lease sale to review the preliminary parcel list with recommended stipulations.

If you have any comments or know of any issues that should be addressed in our analysis of the parcels, please provide comments using one of the following methods:

Electronic: BLM e-Planning website – https://eplanning.blm.gov
Advanced Search for NEPA # DOI-BLM-MT-0000-2019-0003-EA
Click "Documents"
Click "Comment on Document"

Mail: Bureau of Land Management
North Central Montana District
Division of Oil and Gas
Attn: Tessa Wallace
1220 38th Street North
Great Falls, Mt 59405

Contact: Tessa Wallace (406) 791-7768

To be most useful, we should receive your comments before July 25, 2019. A map of the parcel locations has also been posted to our internet web site. If your office plans to utilize GIS applications in your review of these parcels, shapefile data can be found here:

BLM e-Planning website: https://eplanning.blm.gov.
Advanced Search for NEPA # DOI-BLM-MT-0000-2019-0003-EA
Under Maps, Click "Data"

If you have any questions, or would like more information about lease sale notices or the EA process, please contact Amy Waring at (406) 896-5095 or via email at awaring@blm.gov or Tessa Wallace at (406) 791-7768 or vial email at tlwallace@blm.gov.

Sincerely,

Dale H. Manchester
North Central Montana District
Division Chief, Oil and Gas