



LEADER
MACHINERY COMPANY, LTD.

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Spray Injection Road Repair Contracting Information



Repair Applications

Pothole Repairs
Shoulder Breaks
Alligator Cracks
Skin Repairs
Radius Failures
Leveling Course
Crack Sealing
Bridge Approach Leveling
Bridge Deck Sealing
Manhole Leveling
Utility Cut Repair
Culvert Pipe Bedding & Erosion Control
Alley Repairs
Speed Bumps
Gravel Road Repairs



Types of Repairs

Alligator Cracks



Before



During



Finished

Berm and Shoulder Repair



Before



During



Finished



Months Later

Bridge Deck Repair



Before



During



Finished

Concrete Repair



Before



During



Finished

Crack Filling Repair



Before



During



Finished

Joint Repair



Before



During



Finished

Concrete Curb Repair



Before



Tack Coat



Mixture



Top Coat



Compaction



Finished

Parking Lot Repair



Before



During



Finished

Saw Cut and Fill Application

SAW CUT 4.5" WIDE BY 5" DEEP WITH CASE SKID STEER LOADER AND ALITEC SAW, CUT CLEANED
FILLED WITH TERRY MATERIALS POLYFILL EMULSION AND NATIONAL #9 LIMESTONE
ROLLED WITH BOMAG BW900 ROLLER

START

SAW CUT

CLEANED

FILL/LUTE

FINISH



Utility Cut Asphalt Repair



Mill and Fill PolyPatch 24"x 2"

Before



During



Finished



Before



During



Finished



Before



During



Finished



Mill and Fill Application on Concrete

MILLED 24" WIDE BY 2" DEEP WITH CAT 229 SKID STEER LOADER AND CAT MILL
FILLED WITH TERRY MATERIALS POLYFILL EMULSION AND NATIONAL #9 LIMESTONE
ROLLED WITH BOMAG BW900 ROLLER



Polyfill Application

Spray Application of Terry Seal Polyfill Emulsion Followed by #9 crushed Limestone Spread Across Emulsion Area and Swept After Patches have Cured



Optional Compaction



Optional Sweeping



Optional Milling/Saw Cutting



SCOPE OF WORK

Sec 1.00 Spray injection repairs to Asphalt or Concrete. Repairs to interstates, highways, county, and township roads including parks and parking lots

Sec 1.01 **Description**

The work consists of preparing surface by cleaning repair area using high volume air flow, then applying a coating of asphalt emulsion to waterproof and seal surface. Next, a mixture of crushed washed limestone and a binder consisting of liquid emulsion is applied until the patch is brought up to grade. Finally a light coating of dry aggregate is spread over the repair.

Sec 1.02 **Materials**

Binder: Contractor shall furnish water based liquid emulsion. See attached information

Aggregate: Contractor shall furnish crushed washed limestone meeting the proper gradation applicable to the repairs being performed. Commonly used aggregate sizes are the following:

Ohio #9 Stone (Sieve Size 1.77 mm)

Ohio #8 Stone (Sieve Size 2.36 mm)

Ohio #57 Stone (Sieve Size 3.00 mm)

Top Cover: Contractor shall apply an application of limestone to the top of the repairs.

Sec 1.03 **Equipment:** Repairs shall be applied by a Dura Patcher spray injection road repair machine. Unit shall be capable of applying tack coat, a mixture of aggregate and emulsion binder, plus the ability to apply just stone.

Sec 1.04 **Weather limitations:** Placement of repair materials should not to be applied before rain showers. For best result application should be at temperatures above 40 degrees with the exception of emergency situations.

Sec 1.05 **Surface Preparation:** Clean area to be repaired with high volume air stream

Sec 1.06 **Repair Application:**

Large Surface Repairs: Apply thin coating of emulsion to the area, then apply a mixture of aggregate and emulsion, once at grade and level, apply a light coating of top gravel to repair area.

Cracks: Apply Emulsion with Vee Jet Nozzle into cracks and thin membrane the length of crack with a minimum of 2" each side from the centerline of the crack. Top coat with #9 aggregate.

Severe Cracks with a depth over 2" and width exceeding 1": Apply mixture into crack, lute excess product to level grade Once repair is at grade and level, a light coating of stone is applied. The repair is then rolled laterally and longitudinally

Residential Areas: Compaction with a smooth drum roller may be desired. Sweeping of loose stone is also an option.

Sec 1.07 **Method of Measurement:**

Repairs to be invoiced on a per gallon basis

Sec 1.08 **Usage Guidelines:**

One gallon of product produces approximately:

10 square feet @ 1" deep repair

20 square feet @ 1/2" deep repair

40 square feet @ 1/4" deep repair

(1) Load is approximately 200 gallons of emulsion and 7 tons of aggregate, this produces around 8 tons of finished product. One load will produce about 4000 square feet @ 1/2" deep of repair area.

Please contact Leader Machinery with any questions or to schedule repair work

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