

**CITY OF KALAMAZOO**  
**SPECIAL PROVISION**  
**FOR**  
**PERMANENT PATCHING**

Page 1 of 3

COK

11/28/2023

**DESCRIPTION**

The work shall consist of repairing transverse and longitudinal cracks greater than 1.25", alligator cracks, spalled pavement or potholes that are not suitable to be repaired by crack sealing or at the direction of the Engineer. The Contractor shall repair distressed pavement by **spray patching**. The final product shall be inspected and approved by the Engineer or corrective action taken to remedy the patched area.

Types of distresses to patch at a particular location shall be mutually agreed upon by the contractor and Engineer; with the final decision being made as necessary by the Engineer should there be a any ambiguity.

**PERSONNEL**

The Contractor's personnel shall be experienced in spray patching and the means & methods of application.

**SPRAY PATCHING**

This method consists of cleaning the area to be spray patched of all rock, dirt, sand, vegetation or other objectionable material, applying a tack material, filling the void with asphalt coated chips and applying a clean layer of aggregate on top to avoid excessive pickup by vehicles.

**A. EQUIPMENT**

The Contractor shall supply all equipment necessary to complete the work. The equipment required includes but is not limited to the following:

1. A proprietary, prototype or market-grade machine capable of adequately clearing the patch area of loose debris, spraying the tack and spray patching material into the cracks or potholes.
2. Any spray patch mixing and application machine used under the contract shall be a "continuous flow unit" capable of accurately delivering a predetermined proportion of aggregate and asphalt emulsion and to discharge the thoroughly mixed product on a

continuous basis. The machine shall be capable of a thoroughly mixed product on a continuous basis. The machine shall be capable of thoroughly blending all the ingredients together. The machine shall be a self-contained unit with a truck mount hopper feed for the aggregate, as to eliminate the liabilities associated with hoist or dump style unloading. The hopper unit shall also incorporate a pressure or forced feed to facilitate even dispersion of the aggregate.

## B. CONSTRUCTION

Prior to applying any requested spray patch, Contractor shall adequately protect all manholes, inlets, and valve boxes within 1ft of the areas to be patched.

Potholes, alligator cracks or other surface defects that are contiguous with cracks are considered to be 'crack related' and are to be repaired by spray patching. If there are questions about where to spray patch on the street, consult the Engineer. There may be street segments, which are not labeled, but shall be spray patched at the discretion of the Engineer.

Work shall not be performed when the atmospheric temperature is below 36° Fahrenheit.

All loose and objectionable material shall be removed from the open crack and surrounding area by blowing with high pressure air streams or other means acceptable by the Engineer.

Cleaned cracks shall be sprayed with the emulsified asphalt, or tack coat and sprayed with the approved patching material. Some over-spraying of the crack will be required to ensure a smooth transition between the repaired areas and the adjacent undisturbed pavement surface. All loose aggregate and debris shall be swept or removed from the pavement surface and disposed of, to the satisfaction of the Engineer, prior to spray patching.

After application of the proposed spray patch, all materials used to cover manholes, inlets and valve boxes shall be removed and disposed of off the site by the Contractor.

The Contractor shall coordinate with the City when each street segment is completed so the City can best coordinate and organize street sweeping following the patching operations.

## C. MATERIALS

The contractor shall apply an MDOT approved RS-2a, CRS-2, or CRS-2M asphalt emulsion from Section 904 of the standard specifications or an approved equivalent by the Engineer.

Stone shall be equivalent to #9 aggregate (3/8" nominal maximum sizing), MDOT 29A, MDOT 34CS, MDOT CST blended aggregate, or Engineer approved equivalent. Stone shall be clean and free of excessive fines and deleterious materials.

D. MEASUREMENT AND PAYMENT

The completed work as measured for Spay Patching shall be measured at the price per gallon of emulsion used. Spray Patching shall be paid for at the Contractors bid price. Price shall include furnishing, unloading, hauling, and applying the spray patching and all labor, tools, equipment, materials, and incidental items necessary to complete the work as provided in the contract.

<u>Pay Item</u>	<u>Description</u>	<u>Pay Unit</u>
5017011	Spray Patching	Gallon