

**MICHIGAN TEST METHOD
FOR
SAMPLING HMA PAVING MIXTURES
BEHIND THE PAVER**

1. Scope

- 1.1 This method covers the procedures for sampling HMA paving mixtures at the point of delivery immediately behind the paver and before initial compaction.
- 1.2 The values stated are to be regarded as the standard.
- 1.3 These procedures may involve hazardous materials, operations and equipment. They do not claim to address all of the safety and health issues associated with their use. It is the responsibility of each user to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. Significance and Use

- 2.1 Sampling is equally as important as testing, and the sampler will use every precaution to obtain samples that will show the nature and condition of the materials which they represent.
- 2.2 This sampling method may be used for:
 - 2.2.1 Contractor Quality Control
 - 2.2.2 Agency Quality Assurance
 - 2.2.3 Investigations

3. Equipment

- 3.1 Sampling Plates - (3 each) The sampling plates used for all mixtures shall be rectangular and have a minimum size of 14 x 28 inches (360 x 720 mm) or 14 x 14 inches (360 x 360 mm). All plates will have a hole approximately 0.25 inches (6 mm) in diameter drilled through each of the four corners.
- 3.2 Lifting Handles and Wire Lead - Attach a 24 inch (600 mm) length of wire to the two holes on each side of the plate to serve as lifting handles. An additional wire lead is attached to one of the lifting handles for locating the buried plate in the pavement. This wire will extend to the edge of the pavement.
- 3.3 Non-absorbent containers with a suitable capacity of either 3.5 gallons (13 liters) or 5 gallons (19 liters).
- 3.4 Hammer and nails for securing plates and wire lead.
- 3.5 MDOT Approved Sampling Shovel (Fig. 2).

3.6 MDOT Approved Splitter

4. Composite Sample

4.1 Sample the HMA paving mixtures at the point of delivery immediately behind the paver and before initial roller compaction. One composite sample consists of a minimum of three increments collected within 10 feet longitudinally and across the width of the paving operation (Fig. 1).

4.2 Sample Size - The composite sample shall be governed by the special provision in the contract.

5. Sampling With Plates and Shovel – Use this method when sampling HMA directly over aggregate base, rubblized concrete, crush and shape HMA base, or a cold milled surface when paving operation is 3 feet or greater.

5.1 Determine the sample locations according to the special provision for QC/QA in the contract.

5.2 Place the plate with the wire lead attached to one of the handles at the designated location ahead of the paver. If conditions on the project require restricting movement of the plate, drive a nail through one of the holes in the plate and into the pavement.

5.3 Extend the wire lead beyond the edge of the pavement. Trucks, pavers, and/or materials transfer devices will be allowed to cross over the plate and/or wire lead.

5.4 After the mixture is placed, use the wire lead to locate the plate. Find and lift the wire handles out of the pavement. This will locate the four corners of the plate.

5.5 Once the plate edges are defined, use the shovel and dig downward through the thickness of the pavement until it is in contact with the plate. Push the shovel forward until the shovel is full. Lift the shovel up slowly, being careful not to lose any HMA. Place materials from shovel directly into sample container.

5.6 Remove sampling plates from pavement.

5.7 The Contractor will fill and level the void left in the pavement with HMA obtained from the paver's auger system. This material will first be placed in sampling buckets.

5.8 Distribute samples.

6. Sampling With Shovel (Without Plates) – Use this method when sampling over HMA and concrete surfaces when paving operation is 3 feet or greater. When paving operation is utilizing a windrow pickup machine, this sampling method shall also be used.

6.1 Determine the sample locations according to the special provision for QC/QA in the contract.

6.2 Using a sampling shovel at the random location dig directly downward into pavement until it comes into contact with the pavement surface. When in contact, push shovel

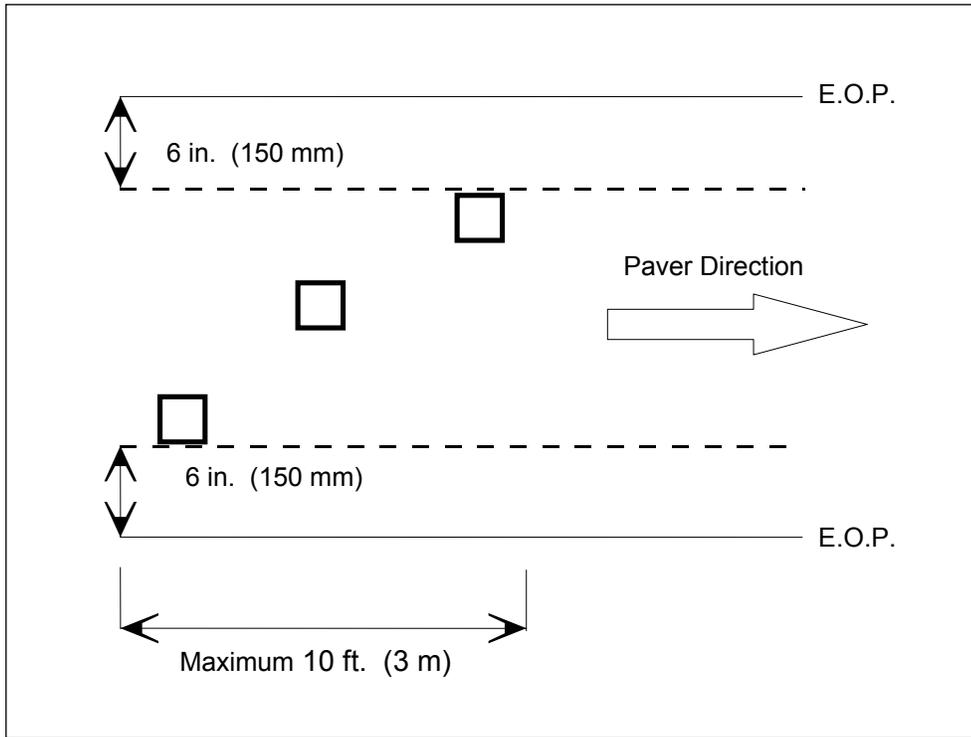


Figure 1: Sampling Pattern Behind the Paver



Figure 2: MDOT Approved Sampling Shovel

Dimensions: Overall Length = 5 Feet
Shovel Width = 10 Inches
Shovel Length = 12 Inches
Shovel Sides = 3 Inches (Minimum)