

**KANSAS DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION TO THE  
STANDARD SPECIFICATIONS, EDITION 2007**

Create a new SECTION in DIVISION 800:

**SAW AND SEAL JOINTS (HMA OVERLAY)**

**1.0 DESCRIPTION**

Provide materials for, locate, saw, clean, and seal joints in the HMA overlay at the locations shown in the Contract Documents or as designated by the Engineer.

<b><u>BID ITEM</u></b>	<b><u>UNITS</u></b>
Saw and Seal Joint (HMA)	Linear Foot
Asphalt Core (Set Price)	Each

**2.0 MATERIALS**

Provide hot type joint sealing compound complying with **DIVISION 1500**.

**3.0 CONSTRUCTION REQUIREMENTS**

**a. General.** Begin the saw and seal operation a minimum of 48 hours after placing the surface course to allow the mat to cool. Complete the saw and seal operation prior to the end of the construction season (as established for asphalt paving) or project completion, whichever is earlier.

Coordinate the sawing, cleaning and sealing in a continuous operation.

**b. Sawing the Joint.** Reference the location of the existing joints in the concrete pavement before placing the HMA overlay by methods approved by the Engineer.

Use a saw that will produce a smooth cut for the required depth and width.

Configure the joints according to **FIGURE 1** within 1 inch horizontally above the existing joint.

Saw the entire depth and width in one single pass for the entire length of the cut.

Saw transverse joints the entire width of the HMA Overlay.

Use either a dry or wet saw method.

**c. Clean the entire depth of the cracks.** If the wet saw method is used, flush wet sawed joints with high pressure water until the water runs clear.

For either saw method, remove all material created by sawing operation and other foreign material that will prevent bonding of the sealant. Remove loose material on the surface immediately adjacent to the joints and cracks. Clean and dry the crack using air compressors equipped with suitable traps capable of removing all surplus water and oil from the compressed air.

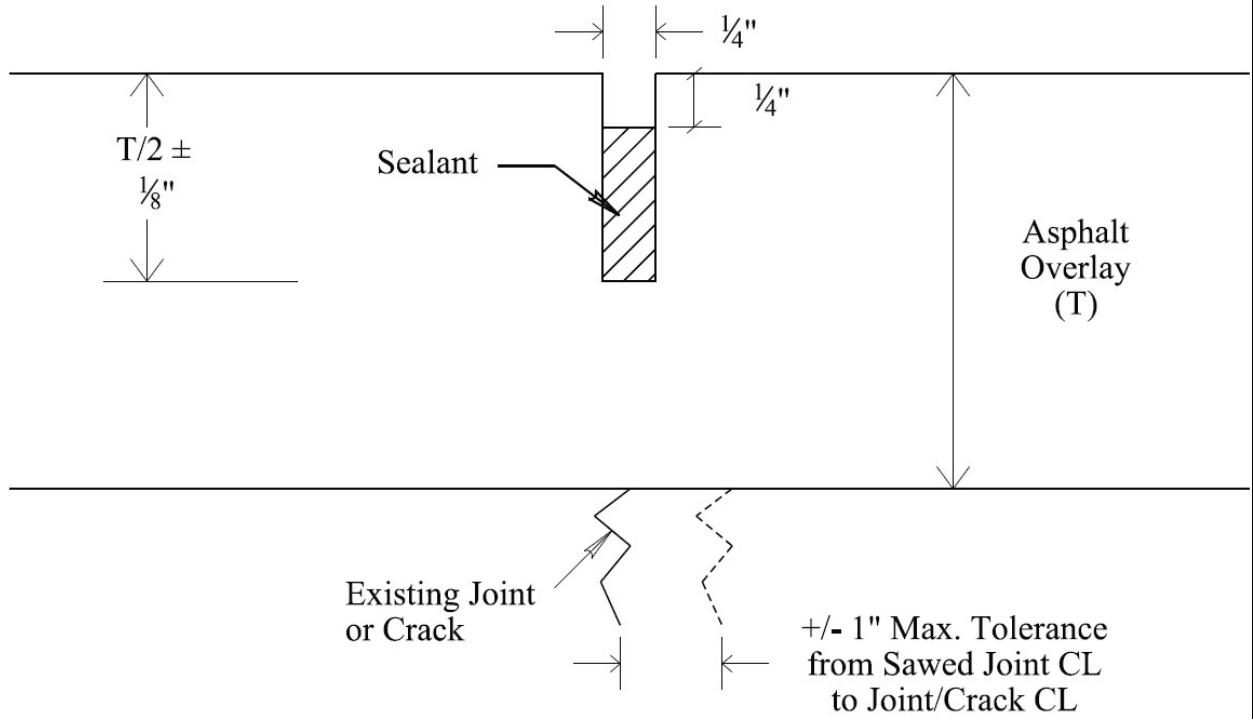
**d. Joint Depth and Location Verification.** Before sealing the joints, the Engineer will randomly identify two transverse joints per lane-mile. Cut a 4 inch core through the entire depth of the HMA and PCCP at these locations.

The Engineer will measure the depth of the HMA overlay, the depth of the saw cut and the horizontal offset between the underlying PCCP joint and the sawed joint.

If the sawed joint is offset by more than the 1 inch tolerance, the Contractor will be paid 60% of the bid price for the lineal feet of joints represented by the deficient core.

(1) HMA Overlay  $> 1.0"$ , If the depth of the saw cut is less than the half of the HMA thickness,  $\pm 1/8$  inch, re-saw every joint to the required depth in the segment represented by the core. Take additional cores for verification of re-sawed joints, at randomly selected locations determined by the Engineer.

Dry the core holes, tack the sides and bottom, fill with the same type of material and properly compact.

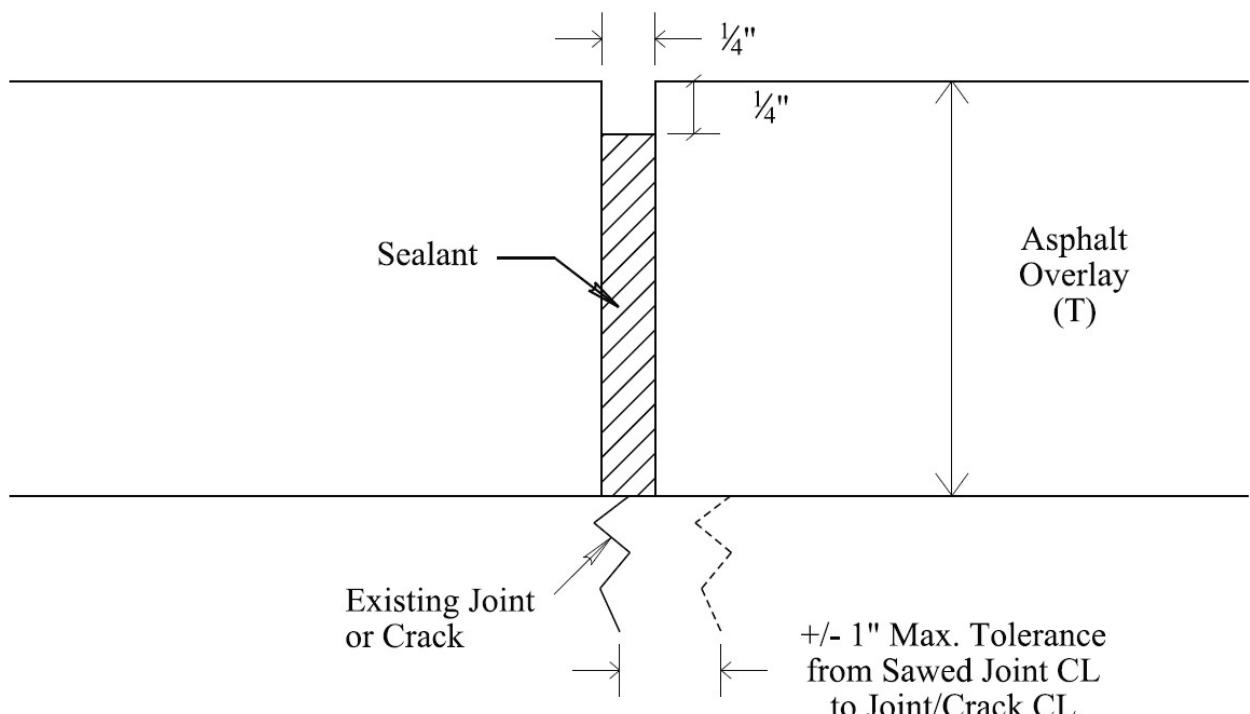


**Figure 1. Entire-depth, full-width saw cut, HMA Overlay  $> 1.0"$**

(2) HMA Overlay  $\leq 1.0"$ , If the depth of the saw cut is less than the full HMA overlay thickness, re-saw every joint to the required depth in the segment represented by the core. Take additional cores for verification of re-sawed joints, at randomly selected locations determined by the Engineer.

Dry the core holes, tack the sides and bottom, fill with the same type of material and properly compact.

**Figure 2. Entire-depth, full-width saw cut, HMA Overlay  $\leq 1.0"$**



**e. Preparation of Asphalt for Joint Sealing.** Provide 2 copies of the manufacturer's recommendations for preparation and application of the sealant. Prepare and use the material according to the manufacturer's recommendations.

**f. Sealing the Joint.** Apply the joint sealant by an approved mechanical device. Place the sealer the entire depth in close conformity with dimensions shown in the Contract Documents. Fill joints to a level  $\frac{1}{4}$ -inch recessed from the pavement surface.

Do not permit traffic over sealed joints until the sealer is tack free, or until debris from traffic can not imbed into the sealant and sealant does not track under tires.

**g. Weather Limitations.** Do not place sealant when the ambient air temperature is below 40°F.

#### 4.0 MEASUREMENT AND PAYMENT

The Engineer will measure sawing and sealing joints by the linear foot along the center of the joint. The Engineer will measure each asphalt core required to verify the saw depth and location.

Payment for "Saw and Seal Joint (HMA)" and "Asphalt Core (Set Price)" at the contract unit price will be full compensation for the specified work.

The Engineer will apply deducts for deficient joint offsets as determined in **subsection 3.0d.** above.