

**KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION TO THE
STANDARD SPECIFICATIONS, 1990 EDITION**

Section 908. Delete this Section and replace with this:

SECTION 908

MULCHING, SLOPE PROTECTION AND EROSION CONTROL

BID ITEMS

Temporary (*) Mulching
Permanent (*) Mulching (Set Price)
Mulching (Tacking Slurry)
Mulching (Hydro)

UNITS

Acre (ha)
Acre (ha)
Acre (ha)
Square Yard (sq m)

*Type of Mulch. If the type of mulch is not specified, use Prairie Hay; other types of mulch may be used only if the Engineer approves.

908.2 MATERIALS

Provide materials that comply with the applicable requirements.

Mulches	Section 2100 (including Special Provisions 90P/M-154,-193, and -283 latest revisions).
Bituminous Materials	Section 1200
Water	Section 2400

908.3 CONSTRUCTION REQUIREMENTS

a. Mulching. Place and punch the mulch immediately after the seeding and fertilizing operations. Do not allow the mulching operations to lag behind the seeding and fertilizing operations more than 24 hours. If rain is forecast, make every effort to mulch areas the same day they are seeded.

A sufficient length of mulching material is needed for the mulch to interlap and bind together. Short stemmed mulching material is more vulnerable to wind action. If the mulching is applied with a straw blower, if required, remove the cutting knives to prevent cutting the mulch too short.

After an area is seeded and fertilized, uniformly spread the mulch over the area. Apply the mulch at the rates shown in the Contract Documents. The rates shown in the Contract Documents are a guide, the Engineer will determine if the applied mulch is sufficient to protect the seeded area.

After the mulch is applied to an area, punch the mulching material (except wood chips and excelsior material) approximately 2 inches (51 mm) into the ground. Perform the punching

operation longitudinally, using a mulch puncher. If needed, use weights on the mulch puncher to punch the mulching material into the soil.

If the slope is too steep to use a mulch puncher, "pat" the mulch with forks as it is placed on the slope. To reduce wind loss, cover the mulch on the upper $\frac{1}{3}$ of slope by hand spreading a light application of soil or sand on the mulch.

On lawns and small areas in urban situations, apply the mulch material using hand methods, unless otherwise approved by the Engineer. As the mulch is placed, "pat" the mulch with a fork. To reduce wind loss, hand spread a light application of soil or sand over the mulched area.

b. Mulching (Tacking Slurry). Immediately after the designated areas are seeded, fertilized and mulched, use hydraulic slurry equipment to apply the mulching (tacking slurry). Unless shown otherwise in the Contract Documents, apply the mulching (tacking slurry) at the rate of 900 lbs per acre (985 kg per ha). Distribute the mulching (tacking slurry) uniformly over the mulch, leaving no bare spots.

Arrange work so the mulching tacking slurry can be placed within 24 hours after each area has been mulched.

c. Hydro Mulching. Apply the bonded fiber matrix over the specified areas by means of a standard hydraulic slurry seeding machine. Demonstrate, to the Engineer's satisfaction, that the equipment and methods will result in a uniform application of the bonded fiber matrix.

Mix the bonded fiber matrix at the rate of 5 lbs per 10 Gals (2.3 kg per 38 L) of water. Apply the bonded fiber matrix at the rate of (dry) 3,571 lbs per 4784 sq yd (1,620 kg per (4,000 sq m) of seeded slope.

Apply the bonded fiber matrix immediately after the seeding and cultipacking. Lightly mist the bonded fiber matrix onto the seeded and cultipacked slope at a rate to maximize adhesion and minimize slumping. Ensure complete coverage from a consistent angle of approach while applying bonded fiber matrix. Achieve no less than 65 percent coverage from the primary angle of application, and 35 percent coverage from the secondary angle of coverage. Maintain secondary angles of coverage of between 175 and 185 degrees from the primary angle.

If the Contract does not include seeding and fertilizing, KDOT will provide the seed and fertilizer for the areas designated for erosion control. Prepare the seedbed, seed and fertilize the prepared area, and place the erosion control as shown in the Contract Documents.

908.4 MEASUREMENT AND PAYMENT

a. Contract Quantities. The Engineer will use the Contract quantities for payment, provided the project is constructed essentially to the lines and grades shown in the Contract Documents.

If the Contract Documents are altered, or if the Engineer or the Contractor questions the accuracy of the Contract quantities for mulch, either party may request measurement of the quantities involved.

If all parties agree, payment for mulch may also be made based on drill measurement less 5%.

b. Measured Quantities. All area measurements in this section will be based upon slope measurements.

The Engineer will measure mulching (hydro) by square yard (sq m).

The Engineer will measure the mulching and mulching (tacking slurry) by the acre (ha).

The recycled paper fibers, tacking agent and water are not measured separately, but are subsidiary to the mulching (tacking slurry).

c. Payment. Payment for "Temporary Mulching", "Mulching (Tacking Slurry)", and "Mulching (Hydro)" at the Contract unit prices is full compensation for the specified work.

When the quantity of "Mulching (Tacking Slurry)" furnished overruns or underruns the Contract quantity by any amount, the Contract unit price shall govern.

Payment for "Permanent Mulching" at the Contract set price (subject to the adjustments in **TABLE 908-1**) is full compensation for the specified work.

TABLE 908-1: PERMANENT MULCHING PAYMENT	
Permanent Mulching Quantity, acres (ha)	Percent of Contract Set Price Per Acre / ha
M ≤ 15 (6 ha)	100%
>15 (6 ha) ≤ 30 (12 ha)	90%
> 30 (12 ha)	80%

01-05-06 BD(ES)(SHS)