

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

Delete SECTION 904 and replace with the following:

SECTION 904

MULCHING

904.1 DESCRIPTION

Provide and place mulching materials as shown in the Contract Documents.

BID ITEMS

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

UNITS

Tons
Tons
Pound
Square Yard
Square Yard

904.2 MATERIALS

Provide materials that comply with the applicable requirements.

Mulch and Mulching Tacking Slurry **DIVISION 2100**
Water **DIVISION 2400**

904.3 CONSTRUCTION REQUIREMENTS

a. Mulching.

Place and punch the mulch immediately after the fertilizing and seeding operations. Do not allow the mulching operations to lag behind the fertilizing and seeding 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. When 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 fertilized and seeded, 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 into the ground. Perform the punching operation longitudinally, using a mulch puncher. When needed, use weights on the mulch puncher to punch the mulching material into the soil.

When the slope is too steep to use a mulch puncher, "pat" the mulch with forks as it is placed on the slope. Apply mulching tacking slurry or cover with a light application of soil or sand to reduce wind loss. On lawns and small areas in urban areas, apply the mulch material using hand methods, unless otherwise approved by the Engineer. As the mulch is placed, "pat" the mulch with a fork. Apply mulching tacking slurry or cover with a light application of soil or sand to reduce wind loss.

b. Mulching (Hydro). Apply the wood cellulose fiber hydromulch immediately after the seeding and cultipacking. Apply the wood cellulose fiber hydromulch 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 wood cellulose fiber hydromulch.

Mix the wood cellulose fiber hydromulch at the rate of 50 pounds per 100 gallons of water. Apply the wood cellulose fiber hydromulch at the rate of (dry) 1,800 pounds per acre of seeded and cultipacked slope, immediately after the seeding and cultipacking to maximize adhesion and minimize slumping. Obtain complete

coverage from a consistent angle of approach while applying wood cellulose fiber hydromulch. Achieve no more than 65% coverage from the primary angle of application, and 35% coverage from the secondary angle of coverage. Maintain secondary angles of coverage of between 175° and 185° from the primary angle.

Mixing proportions, application methods and rates may be adjusted based on the manufacturer's recommendations.

c. Mulching Tacking Slurry. Place and punch the mulch immediately after the fertilizing and seeding operations.

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. When 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 fertilized and seeded, 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 into the ground. Perform the punching operation longitudinally, using a mulch puncher. When needed, use weights on the mulch puncher to punch the mulching material into the soil.

When the slope is too steep to use a mulch puncher, "pat" the mulch with forks as it is placed on the slope. Apply mulching tacking slurry or cover with a light application of soil or sand to reduce wind loss. On lawns and small areas in urban areas, apply the mulch material using hand methods, unless otherwise approved by the Engineer. As the mulch is placed, "pat" the mulch with a fork. Apply mulching tacking slurry or cover with a light application of soil or sand to reduce wind loss.

Immediately after the designated areas are mulched and punched, 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 pounds per acre. 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.

d. Mulching (Hydro BFM). 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 50 pounds per 100 gallons of water. Apply the bonded fiber matrix at the rate of (dry) 3,500 pounds per acre of seeded and cultipacked slope, immediately after the seeding and cultipacking to maximize adhesion and minimize slumping. Obtain complete coverage from a consistent angle of approach while applying bonded fiber matrix. Achieve no more than 65% coverage from the primary angle of application, and 35% coverage from the secondary angle of coverage. Maintain secondary angles of coverage of between 175° and 185° from the primary angle.

Mixing proportions, application methods and rates may be adjusted based on the manufacturer's recommendations.

904.4 MEASUREMENT AND PAYMENT

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

The Engineer will measure the mulching (temporary) and mulching (permanent)(set price) by the ton.

The Engineer will measure mulching tacking slurry by the pound. Payment will be made based on the dry package weight of the recycled paper fibers and tacking agent. Water will not be measured separately, but is subsidiary to the mulching tacking slurry.

The Engineer will measure mulching (hydro) and mulching (hydro BFM) by square yard.

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

When temporary seeding and permanent seeding are combined, the Engineer will pay for mulching under the bid item Mulching (Temporary), and the bid item Mulching (Permanent) (Set Price) will be underrun.

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

Payment for "Mulching (Permanent) (Set Price)" at the contract set unit price (subject to the adjustments in **TABLE 904-1**) is full compensation for the specified work.

TABLE 904-1: PERMANENT MULCHING PAYMENT	
Mulching (Permanent) Quantity, M (acres)	Percent of Contract Set Unit Price Per Ton
$M \leq 15$	100%
$15 < M \leq 30$	90%
$30 < M$	80%

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Jul-13 Letting