

STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	618-34	1998	84	168

GENERAL : The entire disturbed area, excepting the paved or surface areas, steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized (limed when required), seeded, and mulched. Soil preparation shall conform to the Standard Specifications. If temporary seeding is required, it shall be done during any time of the year that soil can be cultivated. The Contractor will be required to finish areas of excavation, borrow, and embankment in accordance with the specifications. Areas that require installation or construction of temporary water pollution control items will be finished in reasonable close conformity to the alignment, grade and cross section shown on the plans or established by the engineer.

All borrow areas shown on the plans are to be fertilized, seeded, and mulched. However, operation in borrow areas where crops are growing may be omitted when requested by the owner.

It shall not be required to till the area to bare ground prior to permanent seeding. If temporary cover has provided stable slopes with no erosion, seed the permanent grasses into the existing cover. If there has been erosion that requires repair prior to seeding, then it may be necessary to regrade the area, resulting in bare ground.

FERTILIZER : A ratio and application rate that equals or exceeds the required minimum rate per acre of N, P₂O₅, K₂O listed in Summary of Quantities will be acceptable.

MULCHING : Mulch shall be spread uniformly over all disturbed areas and punched in the soil, unless otherwise noted on the plans. The rate of application per acre, thickness in place, for the various mulching materials are as follows :
Prairie Hay Mulching 1 3/4 - 2 1/4 Tons per Acre = 1 1/2" loose depth spread uniformly over acre.
Bromegrass Mulching 1 3/4 - 2 1/4 Tons per Acre = 1 1/2" loose depth spread uniformly over acre.
Wood Chips Mulching 4 - 5 Tons per Acre = 1 - 2" loose depth spread uniformly over acre.
Wood Fiber Mulching 3/4 - 1 Tons per Acre = spread uniformly over acre.
Other vegetation mulches (Acceptable only with the engineer's concurrence)

The above rates are a guide. It will be at the discretion of the engineer to determine what rate is sufficient for adequate protection of newly seeded areas.

The amount of mulch in the bid quantities is estimated. The total mulch required shall be determined in the field. The bid item for mulching shall be paid for by one of the following ways : A.) Plan quantity as shown on Summary of Quantities, Seeding Sheet or Water Pollution Control Sheet. B.) Slope measurement as measured in the field. or C.) Drill measurement less 5% as measured at the time of seeding.

SUMMARY OF SEEDING QUANTITIES				
SEEDING PERIOD : See chart - lower left of sheet.		SODDING PERIOD : March 1 to April 15 and Sept. 1 to Nov. 15		
RATE LBS./ACRE	ACRES	BID ITEM	BID QUANTITY "FOR INFORMATION ONLY"	UNIT
350	13	Fertilizer (10-20-10)	4550	lbs.
350	13	Seed (Fescue) (K-31)	4550	lbs.
		Mulching	13	ac.
TEMPORARY SEEDING				
280	13	Fertilizer (10-20-10)	3640	lbs.
30	13	Seed (Ryegrass)	390	lbs.
		Mulching	13	ac.

NOTE : Permanent Seeding shall be paid for at the contract unit price bid per acre for "Seeding". All disturbed areas shall be seeded, fertilized and mulched at the listed rate per acre. The acres are estimated.

Temporary Seeding

Temporary Seeding shall be paid for at the contract unit price bid per acre for "Temporary Seeding" and shall consist of all necessary seeding, mulching, labor, equipment, and incidentals necessary to seed the defined areas.

The contract unit price shall govern for "Temporary Seeding" regardless of the amount of overruns or underruns.

The bid item "Temporary Seeding" shall be used only if requested by the engineer. This bid item shall be underrun in its entirety if not requested by the engineer.

Erosion Control Mat

Erosion Control Mat shall be paid for at the contract unit price bid per square yard for "Erosion Control Mat" and shall consist of all necessary materials, labor, equipment, and incidentals necessary to install the Erosion Control Mat. The contract unit price shall govern for "Erosion Control Mat" regardless of the amount of overruns or underruns.

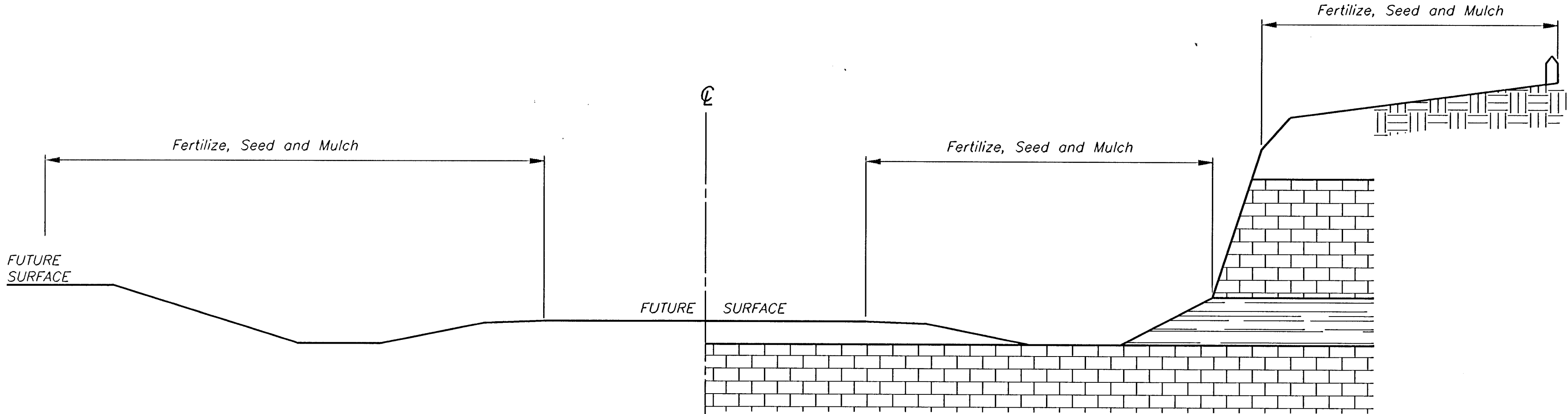
The bid item "Erosion Control Mat" shall be used only if requested by the engineer. This bid item shall be underrun in its entirety if not requested by the engineer.

Approximately 175 staples required per 4'x225' roll of Jute Mesh, 125 staples required per 4'x150' roll of Soil Erosion Retention Blanket. Stagger junction slots.

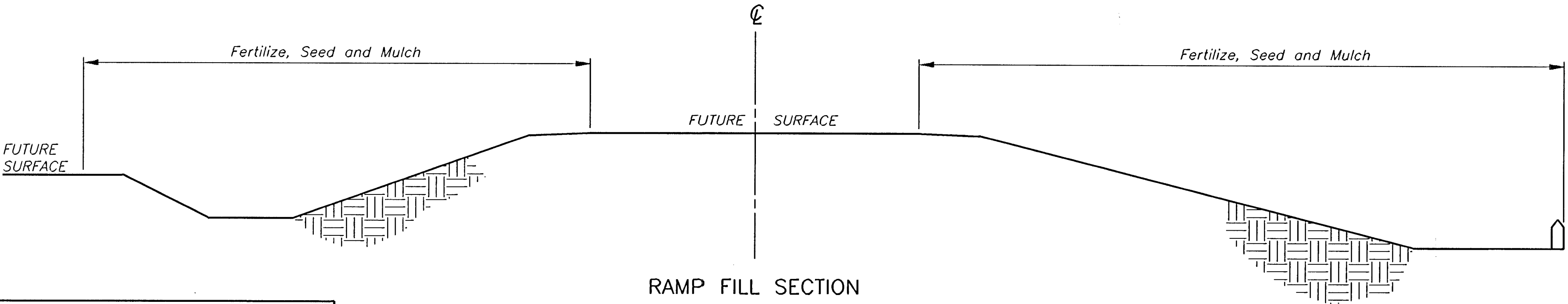
In order for Erosion Control to be in contact with the soil, Erosion Control shall be laid loosely and stretching shall be avoided.

The quantity ~~(for information only)~~ for Erosion Control shown on the plans does not include material required for "Junction Slots, Anchor Slots, and Lap Joints". The contractor shall estimate the additional quantity of Erosion Control needed for these items. This additional material is not measured or paid for directly, but is subsidiary to furnishing and placing Erosion Control Mat.

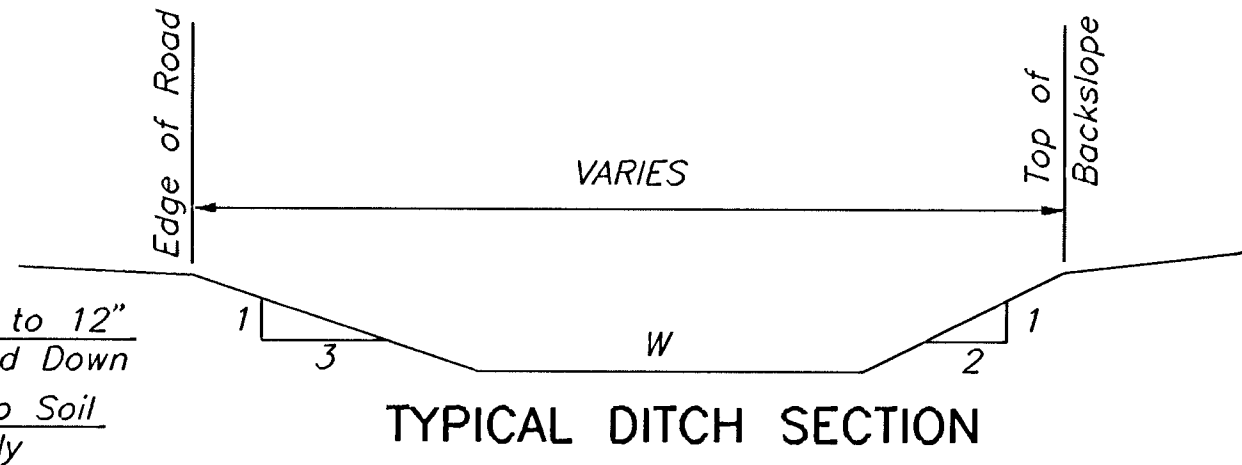
Quantity of "Erosion Control Mat" (Jute Mesh) = 1,000 Sq. Yds. ~~(For information Only)~~.



RAMP CUT SECTION

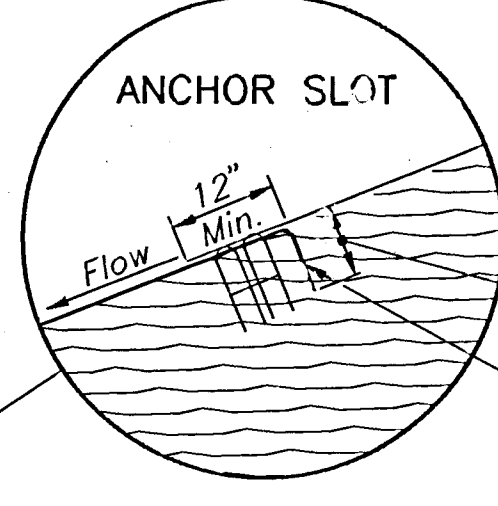
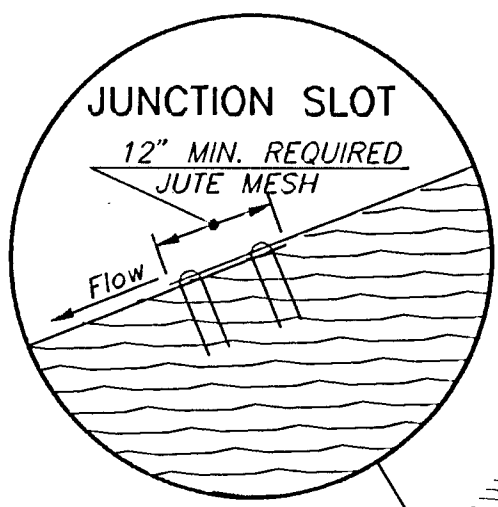


RAMP FILL SECTION

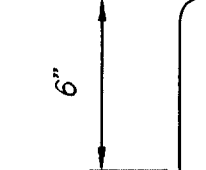


TYPICAL DITCH SECTION

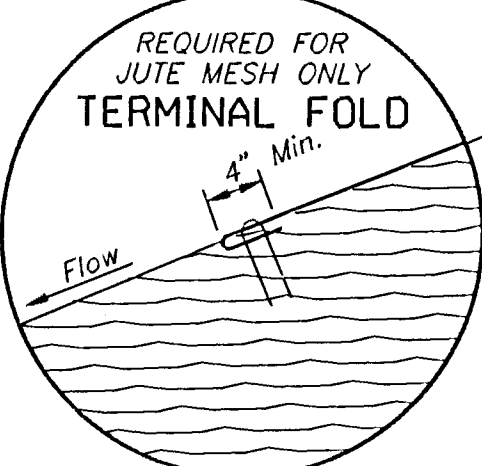
SEEDING PERIODS	
COOL SEASON February 15 to April 20 and August 15 to Sept. 30	WARM SEASON March 1 to April 30
SPECIES	SPECIES
Bluegrass	Bluestems
Bromegrasses	Buffalograss
Fescues	Eastern Gamagrass
Ryegrass	Gramas
Wheatgrass	Indiangrass
	Lovegrasses
	Switchgrass
	Wildflower Mixes



4" to 12" Fold Down Tamp Soil Firmly

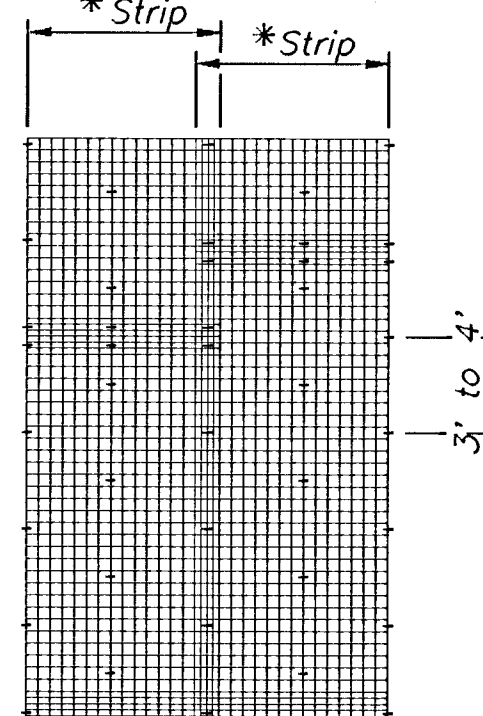


Staples shall be of a length to insure 6" penetration into soil.

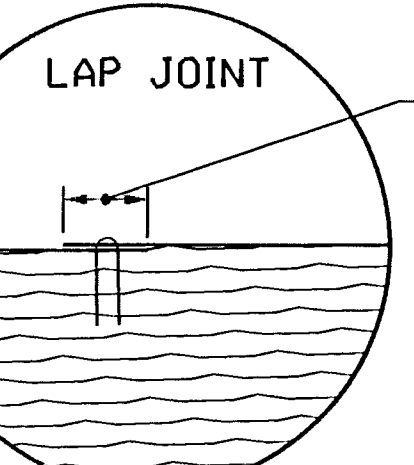


EROSION CONTROL MAT DETAIL

Wire Staples (Alternately placed in rows approximately 2' apart).



PLAN VIEW STAPLING DIAGRAM TWO STRIPS SHOWN



EROSION CONTROL SEEDING - SODDING SUMMARY OF SEEDING QUANTITIES

PREPARED BY SEDGWICK COUNTY BUREAU OF PUBLIC SERVICES HIGHWAY DIVISION				
DAVID C. SPEARS, P.E.		DIRECTOR/COUNTY ENGINEER		
REVISED	SCALE	DESIGNED	TRACED	CHECKED
	DATE			
	PLANFILE		TOTAL SHEETS	125