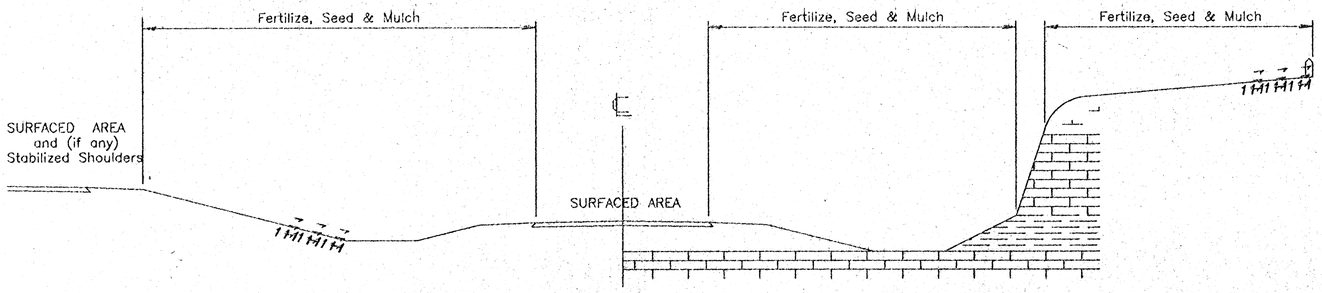
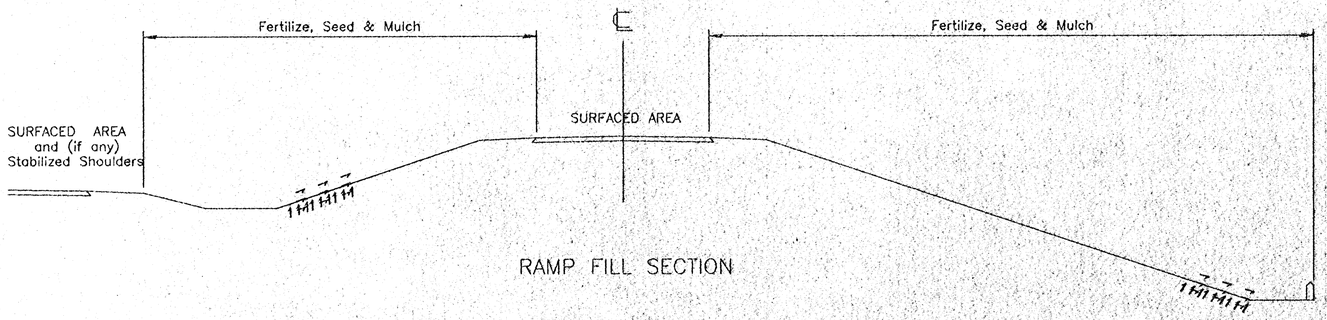
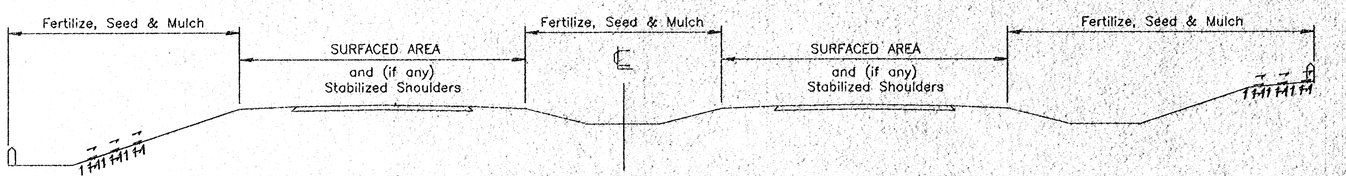
FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	87-N-0099-01	1999	21	68



RAMP CUT SECTION



RAMP FILL SECTION



FILL SECTION CUT SECTION

TYPICAL SECTION --- DUAL PAVEMENT

GENERAL: The entire disturbed area, excepting the paved or surfaced 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.

Temporary seeding shall be done during any time of the year that the soil can be cultivated. After the temporary seeding has been completed on the entire project, a permanent seeding shall be done by another project during the normal seeding season.

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 as established by the Engineer.

FERTILIZER: A ratio and application rate that equals or exceeds the required minimum rate per hectare of N, P_2O_5, K_2O 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 hectare, thickness in place, for the various mulching materials are as follows:

Prairie Hay	3,900 – 5,000	Kilograms per Hectare	=	40mm loose depth spread uniformly over hectare.
Bromegrass	3,900 – 5,000	Kilograms per Hectare	=	40mm loose depth spread uniformly over hectare.
Wheat or Oats Straw	3,400 – 4,500	Kilograms per Hectare	=	80mm loose depth spread uniformly over hectare.
Wood Chips	9,000 – 11,200	Kilograms per Hectare	=	25–50mm loose depth spread uniformly over hectare.
Wood Fiber	1,700 – 2,200	Kilograms per Hectare	=	loose depth spread uniformly over hectare.

Other vegetative mulches (Acceptable only with the Engineer's concurrance).

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 field, or C) Drill measurement less 5% as measured at the time of seeding.

SUMMARY OF SEEDING QUANTITIES

P.L.S. RATE/ HECTARE	* HECTARES	BID ITEM	PARTICIPATING QUANTITY	NON-PARTICIPATING QUANTITY	TOTAL QUANTITY	UNIT
175	0.3	FERTILIZER (16-20-0)	43.1	9.4		KG
		BERMUDA GRASS SOD STRIPS	1600	350	1,950	S.M.

* NOTE: Projects of less than 2 hectares be bid as "Seeding" by the lump sum. All disturbed areas shall be seeded, fertilized and mulched at the listed rate per hectare. The hectares are estimated.

SEEDING PERIODS

COOL SEASON February 15 to April 20 and August 15 to Sept. 30	WARM SEASON November 15 to June 1
SPECIES	SPECIES
Bluegrasses	Bluestems
Bromegrasses	Buffalograss
Fescues	Eastern Gamagrass
Ryegrasses	Gramas
Wheatgrasses	Indiangrass
Reed Canarygrass	Lovegrasses
	Switchgrass
	Wildflower Mixes

When "Cool Season" species are mixed with "Warm Season" species, in areas of 2 hectares or more, the mixture shall be seeded during the "Warm Season". In areas of less than 2 hectares, the mixture of "Cool Season" and "Warm Season" species may be seeded during the "Warm or Cool Seasons".

NO.	DATE	REVISIONS	BY	APP'D
3	12-31-97	Revise Warm Season Seeding Period	WCL	RDR
2	7-18-95	CONVERT TO SI	DAK	RDR
1	6-1 1-93	Revised Seeding Dates and note	HLH	RDR

KANSAS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
SEEDING--SODDING
SUMMARY OF SEEDING QUANTITIES

LA850 SI

F.H.W.A. APPROVAL	2-02-98	APP'D	Richard D. Ross		
DESIGNED	WCL	DETAILED	WCL	QUANTITIES	TRACED DAK
DESIGN CK.	RDR	DETAIL CK.	RDR	QUAN.CK.	TRACE CK. WCL

Drawn By $$USERNAME$$
DGN File $$$$$$$$$$$$$$$$DGNSPEC$$$$$$$$$$$$$$$$
Plotted $$$$$$SYTIME$$$$$$ View= PLOT 1