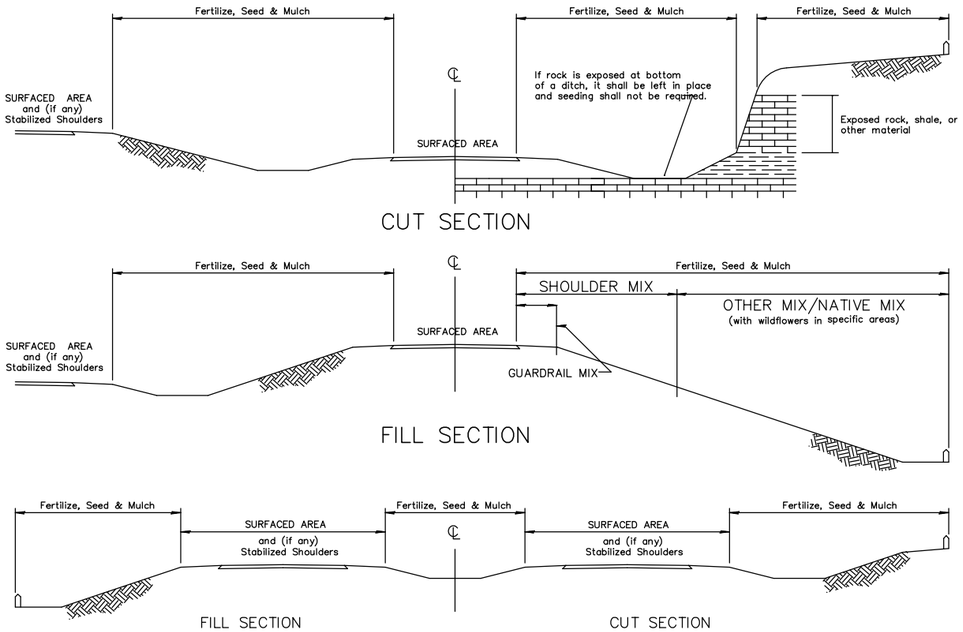
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0308-01	2005	20	37



TYPICAL SECTION – DUAL PAVEMENT

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
Canada Wi l drye	Eastern Gamagrass
Fescues	Gramas
Ryegrasses	Indiangrass
Wheatgrasses	Lovegrasses
Reed Canarygrass	Switchgrass
	Wildflower Mixes

When "Cool Season" species are mixed with "Warm Season" species, in areas of 1 acre or more, the mixture shall be seeded during the "Warm Season". In areas of less than 1 acre, the mixture of "Cool Season" and "Warm Season" species may be seeded during the "Warm or Cool Seasons".

SODDING PERIODS

March 1 to April 15
and
September 1 to November 15

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 except as noted below.

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, P_2O_5, K_2O listed in Summary of Seeding 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 mulching material is as follows:

1 3/4 – 2 1/4 Tons per Acre =1 1/2 " loose depth spread uniformly over acre.

All mulch shall be noxious weed free native prairie hay.

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

The above rate is 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.

NATIVE WILDFLOWER MIX

PLS RATE	NAME	QTY (lb)
0.2	Black Eyed Susan	
0.1	Illinois Bundleflower	
0.2	Maximilian Sunflower	
0.1	Purple Prairieclover	
0.1	Showy Partridgepea	
0.1	Upright Coneflower	
0.8 lb	Total (lb)	

NATIVE WILDFLOWER MIX – TALL

PLS RATE	NAME	QTY (lb)
0.2	Clasping Coneflower	
0.2	Grayhead Coneflower	
0.2	Lance-leaf Coreopsis	
0.1	New England Aster	
0.2	Pale Purple Coneflower	
0.2	Plains Coreopsis	
0.2	Purple Coneflower	
0.4	Purple Prairie Clover	
0.1	Roundhead Lespedeza	
0.2	Showy Partridge Pea	
0.1	Thickspike Gayfeather	
0.1	Upright Coneflower	
0.2	Wild Bergamont	
0.1	Showy Primrose	
0.1	Lemon Mint	
2.6 lb	Total (lb)	

Package and deliver the wildflower seed separately from the grass seed mix. Package and deliver the Tall Drop Seed separately from the grass seed and the wildflower mix. Place the grass seed (except Tall Drop Seed) in the large seed box and drill (cover) seed 1/8 " – 1/4 ". Place the wildflower seed in a separate seed box and drill (cover) seed 1/16 " maximum. Place the Tall Drop Seed in a separate (third) seed box and place the seed (using the seed drill) on the soil surface.

OPTION: Broadcast Tall Drop Seed on the soil surface.

SUMMARY OF SEEDING QUANTITIES

P.L.S. RATE/ACRE SHLDR	P.L.S. RATE/ACRE OTHER			ACRES SHLDR	ACRES OTHER			BID ITEM	QUANTITY	UNIT
								~~Fertilizer~~ (16-20-0)		
								Turf-Type Tall ~~Fescue~~ Seed Blend		
								Blue Grama Grass Seed (Lovington)		
								Buffalograss Seed (Treated)		
								Mulching (Permanent) (Set)	1	ac

SUMMARY OF SOD QUANTITIES

P.L.S. RATE/ACRE SHLDR	P.L.S. RATE/ACRE OTHER			ACRES SHLDR	ACRES OTHER			BID ITEM	QUANTITY	UNIT
								Sod – Turf Type Buffalo (Median-Non Participatory)	202	Sq. Yd.
								Sod – Turf Type Tall Fescue	1200	Sq. Yd.
								TOTAL SODDING	1402	Sq. Yd.

EROSION CONTROL– CLASS X, TYPE Y

STATION TO STATION	SIDE	LENGTH	WIDTH	SQ FEET
TOTAL EROSION CONTROL (CLASS X, TYPE Y) =				

PLANT LIST – SHADE TREES

QTY.	COMMON NAME	BOTANICAL NAME	SIZE/COMMENT
5	'White Shield' Osage Orange	Maclura pomifera 'White Shield'	2 1/2-3" B&B (Male)

Note: Only Maclura pomifera "Double O' and Maclura pomidera 'Wichita' will be considered as substitutes for the specified tree variety. Cost of non-wholesale available tree, (if only available retail), is subsidiary to project.

SHLDR = Shoulder Turf Mix: Includes a 30 foot wide strip along the stabillzed shoulder on each side of each traveled way, plus all median areas less than 60 feet wide.

OTHER = All other turf areas except Shoulder, Guardrail, and Native areas usually include the Native Wildflower Mix.

GRDRL = Guardrail Mix: This mix does not need mowing. Plant it below the guardrail between the edge of pavement and the edge of the 10:1 slope, and on steep slopes or non-mowable slopes as shown on the drawings.

NATIVE = The Native Mix is a 40% wildflower, 60% native grass mix. See this sheet for the locations of this high wildflower content seed mix.

NOTE: Projects of less than 1 acre shall be bid as "Seeding" by the lump sum. All disturbed areas shall be seeded, fertilized and mulched at the listed rate per acre. The acres are estimated.

J:\Civil\03431\dwg\Details\LA850.DWG 6/30/2004 2:13:26 PM CST

NO.	DATE	REVISIONS	BY	APP'D
4				
3	3/01/04	Revised Standard	FCM	SHS
2	7/18/03	Revised Standard	FCM	SPV
1	5/1 0/99	Revised Standard	WCL	RDR

KANSAS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
SEEDING–SODDING
SUMMARY OF SEEDING QUANTITIES

~~LA850~~ 20

F.H.W.A. APPROVAL	3/11/2004	APP'D	Scott H. Shields
DESIGNED FCM	DETAILED FCM	QUANTITIES	TRACED FCM
DESIGN CK. SHS	DETAIL CK. SHS	QUAN.CK.	TRACE CK. SHS