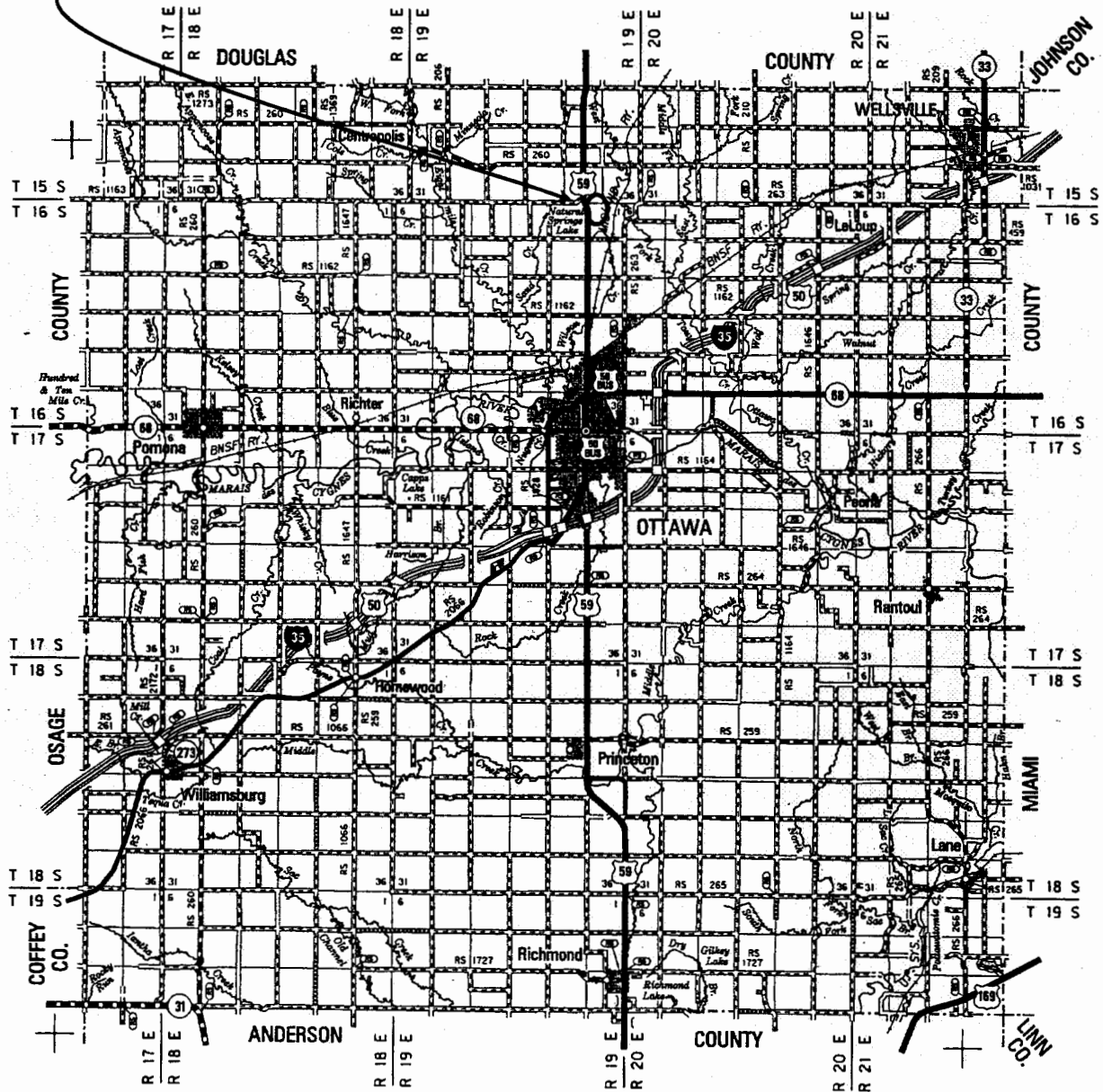


59-30 K-7889-01
Northbound Ramp over US-59

1-16-19E
W/2 NW

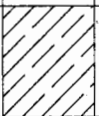
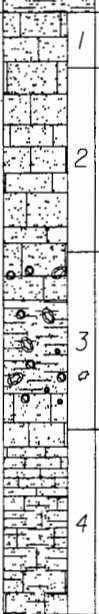


Franklin County

KANSAS DEPARTMENT OF TRANSPORTATION



RTE./CO.	59-30	SOUNDING NO.	CD	SHEET 1 OF 3
BRIDGE STA.	269+52.79; CL	PROJ. NO.	K-7889-01	BRIDGE * 59-30-22.92(114)
SITE NAME	Northbound Ramp over US-59			HOLE STA. 66+75.00; CL
GEOLOGIST	R. Crow	SCALE	1 unit = 2 feet	DATE June 14, 2004
DRILLER	J. Burns	RIG TYPE	CME-75	TOP HOLE ELEV. 1011.20
GW ELEV. 11	1005.10	TOTAL DEPTH	67.8	M/B ELEV. 1008.20

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (tsf)	ELASTIC MODULUS (tsf)	ELEVATION
			0.0	1011	T.H.E. = 1011.20			1011
Augers	Soil Mantle		3.0	1009	1008.20	Shelby #1		1009
	Vinland Shale Member		7.0	1007	Shale, sandy, tan/gray	*	*	1007
Core Barrel	Tonganoxie Sandstone		8.5	1005	1004.20			1005
		1	1003	Sandstone, argillaceous, tan-gray to maroon/tan, soft, crossbedded, iron nodules to iron rich zones, basal 3.2' and middle 2.5' becomes very shaley.			1003	
		2	1001				1001	
		13.5	999				999	
		3	997				997	
		18.3	995				995	
		4	993				993	
		23.3	991		2.515	102.5	991	
		5	989				989	
		27.8	987	987.90			987	
				985	Shale, sandy, gray with tan to gray/maroon, high swell potential.			985
				983		3.260	49.1	983



KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO.	59-30	SOUNDING NO.	CD	SHEET 2 OF 3
BRIDGE STA.	269+52.79; CL	PROJ. NO.	K-7889-01	BRIDGE * 59-30-22.92(114)
SITE NAME	Northbound Ramp over US-59			HOLE STA. 66+75.00; CL

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (tsf)	ELASTIC MODULUS (tsf)	ELEVATION
Core Barrel	Tonganoxite Sandstone		6	981	Shale, sandy, gray with tan to gray/maroon to gray, laminar zones present, high swell potential.			981
				980.00				
	Weston Shale Member		32.3	979	Shale, sandy, gray to light gray, limy, laminar, high swell potential, some thin limestone seams at 45.0' and 45.9'.	14.10	481.5	979.70
			7	977		9.900	370.5	977.70
			8	975		27.25	780.0	975.20
			38.0	973				973
			9	971		5.200	193.0	971
			42.5	969				970.60
			10	967				969
			43.5	965				967
			11	963		7.500	296.5	963.40
			48.0	961				963
			12	959		49.05	1400	959
			52.8	957		24.10	1325	958.90
			13	955				957.40
			57.7	953		23.55	1440	957
			14	951		46.30	3425	952.70
			58.5	949				952.00
			15					951
								949



KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO.	59-30	SOUNDING NO.	CD	SHEET 3 OF 3
BRIDGE STA.	269+52.79:CL	PROJ.NO.	K-7889-01	BRIDGE * 59-30-22.92(114)
SITE NAME	Northbound Ramp over US-59			HOLE STA. 66+75.00:CL

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (tsf)	ELASTIC MODULUS (tsf)	ELEVATION
Core Barrel	Weston Shale Member		15 63.0	947	Shale, gray, hard, very limy, crossbedded.	91.0	4930	948.20
			16 67.8	945		16.35	2140	945
				943	TD = 67.8			943
				941				941
				939				939
				937				937
				935				935
				933	Core			933
				931	Depth			931
				929	Elev.			929
				927	Cut			927
				925	Rec.			925
				923	%			923
				921	RQD			921
				919				919
				917				917
				915				915

* - Sample unable to be tested.

North Bound Ramp over US-59

Project No. 59-30 K-7889-01

Note: All measurements are in English

	<u>Elevation</u>	<u>Depth</u>		<u>Mantle</u>
Core Hole #1	1011.20	0.00	Silty clay, tan-brown.	
Sta. 66+75	1008.20	3.00	Pushed shelby #1. 3.0 to 5.0 ft. Sandy shale.	
centerline	1006.20	5.00	Shale, sandy, tan-gray.	
Date Drilled 6/14/04	1004.20	7.00	Begin coring.	
Geologist: R. Crow				Vinland Shale/Tonganoxie Sandstone
Driller: Jim Burns				
Water depth 6.2 ft.				
Water level 1005.0				

Core # 1 1004.20 7.00 Shaly sandstone, tan-gray.
7.0 to 8.5 ft. 1002.70 8.50 End Core 1.
Cut 1.5 ft.
Recovered 1.5 ft.
RQD = 0.0%

Core # 2 1002.70 8.50 Sandstone, cross bedded, maroon-tan, core falling apart.
8.5 to 13.5 ft. 997.70 13.50 End Core 2.
Cut 5.0 ft.
Recovered 4.6 ft.
RQD = 52%

Core # 3 997.70 13.50 Sandstone, cross bedded, maroon-tan, core falling apart.
13.5 to 18.3 ft. 996.80 14.40 Sandstone, iron rich, badly broken.
Cut 4.8 ft. 995.30 15.90 Sandstone, shaly.
Recovered 4.0 ? ft. 993.70 17.50 Lost 17.5 to 18.3.
RQD = 55% 992.90 18.30 End core 3.

Vinland Shale/Tonganoxie Sandstone

Core # 4 992.90 18.30 Sandstone, shaly cross-bedded.
18.3 to 23.3 ft. 991.10 20.10 Sandstone, very shaly, tan-gray.
Cut 5.0 ft. 987.90 23.30 End core 4.
Recovered 5.0 ft.
RQD = not recorded

Sample 1 19.4 to 20.0
 991.8

Core # 5 987.90 23.30 Shale, sandy, gray with tan.
23.3 to 27.8 ft. 983.40 27.80 End core 5.
Cut 4.5 ft.
Recovered 5.1 ft.
RQD = 47%

Sample 2 27.0 to 27.5
 984.2

North Bound Ramp over US-59

Project No. 59-30 K-7889-01

	<u>Elevation</u>	<u>Depth</u>	
Core # 6	983.40	27.80	Shale, sandy, gray/maroon.
27.8 to 32.3 ft.	978.90	32.30	End core 6. Vinland Shale/Tonganoxie Sandstone
Cut 4.5 ft.			
Recovered 4.9 ft.			Sample 3 30.8 to 31.5
RQD = 75%			98.4
Core # 7	978.90	32.30	Shale, sandy, gray, laminar.
32.3 to 33.5 ft.	977.70	33.50	End core 7. Weston Shale
Cut 1.2 ft.			
Recovered 0.9 ft.			Sample 4 33.0 to 33.5
RQD = 55%			
Core # 8	977.70	33.50	Shale, sandy, gray, laminar.
33.5 to 38.0 ft.	973.20	38.00	End core 8.
Cut 4.5 ft.			
Recovered 4.5 ft.			Sample 5 35.2 to 36.0
RQD = 95%			
Core # 9	973.20	38.00	Shale, sandy, gray, laminar.
38.0 to 42.5 ft.	968.70	42.50	End core 9.
Cut 4.5 ft.			
Recovered 4.5 ft.			Sample 6 40.1 to 40.6
RQD = 90%			
Core # 10	968.70	42.50	Shale, sandy, gray, laminar, hard.
42.5 to 43.5 ft.	967.70	43.50	End core 10.
Cut 1.0 ft.			
Recovered 0.8 ft.			
RQD = 80%			
Core # 11	967.70	43.50	Shale, gray, hard.
43.5 to 48.0 ft.	966.20	45.00	Shale, limy, thin limestone stringers.
Cut 4.5 ft.	965.20	46.00	Shale, gray, laminar.
Recovered 4.5 ft.	963.20	48.00	End core 11. Weston Shale
RQD = 91%			
			Sample 7 47.3 to 47.8

North Bound Ramp over US-59

Project No. 59-30 K-7889-01

	<u>Elevation</u>	<u>Depth</u>		
Core # 12	963.20	48.00	Shale, limy, gray, hard, laminar.	
48.0 to 52.8 ft.	958.70	52.50	End core 12.	Weston Shale
Cut 4.8 ft.				
Recovered 4.8 ft.			Sample 8 51.6 to 52.3	
RQD = 100%				

Note: All shales above this elevation seem to be expansive.

Core # 13	958.40	52.80	Shale, limy, gray, hard, laminar.	
52.8 to 57.7 ft.	953.50	57.70	End core 13.	
Cut 4.9 ft.				
Recovered 4.9 ft.			Sample 9 53.2 to 53.8	
RQD =100%				

Core # 14	953.50	57.70	Shale, limy, gray, hard, laminar.	
57.7 to 58.5 ft.	952.70	58.50	End core 14.	
Cut 0.8 ft.				
Recovered 0.8 ft.			Sample 10 57.9 to 58.5	
RQD =100%				

Core # 15	952.70	58.50	Shale, very limy.	
58.5 to 63.0 ft.	951.20	60.00	Shale, hard, gray, cross-bedded..	
Cut 4.5 ft.	948.20	63.00	End core 15.	
Recovered 4.5 ft.			Sample 11 58.6 to 59.2	
RQD =100%			Sample 12 62.3 to 63.0	

Core # 16	948.20	63.00	Shale, very limy, gray, cross-bedded.	
63.0 to 67.8 ft.	943.40	67.80	End core 16. Total depth.	Weston Shale
Cut 4.8 ft.				
Recovered 4.8 ft.			Sample 13 65.8 to 66.3	
RQD =100%				

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	59-30 K-7889-01	2006	1	

PROJ. NO. 59-30 K-7889-01
K788-0(901)

GRADING
BRIDGES
FENCING
SEEDING

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

FEDERAL AID PROJECT
FRANKLIN COUNTY
US 59 Sta. 212

Volume I

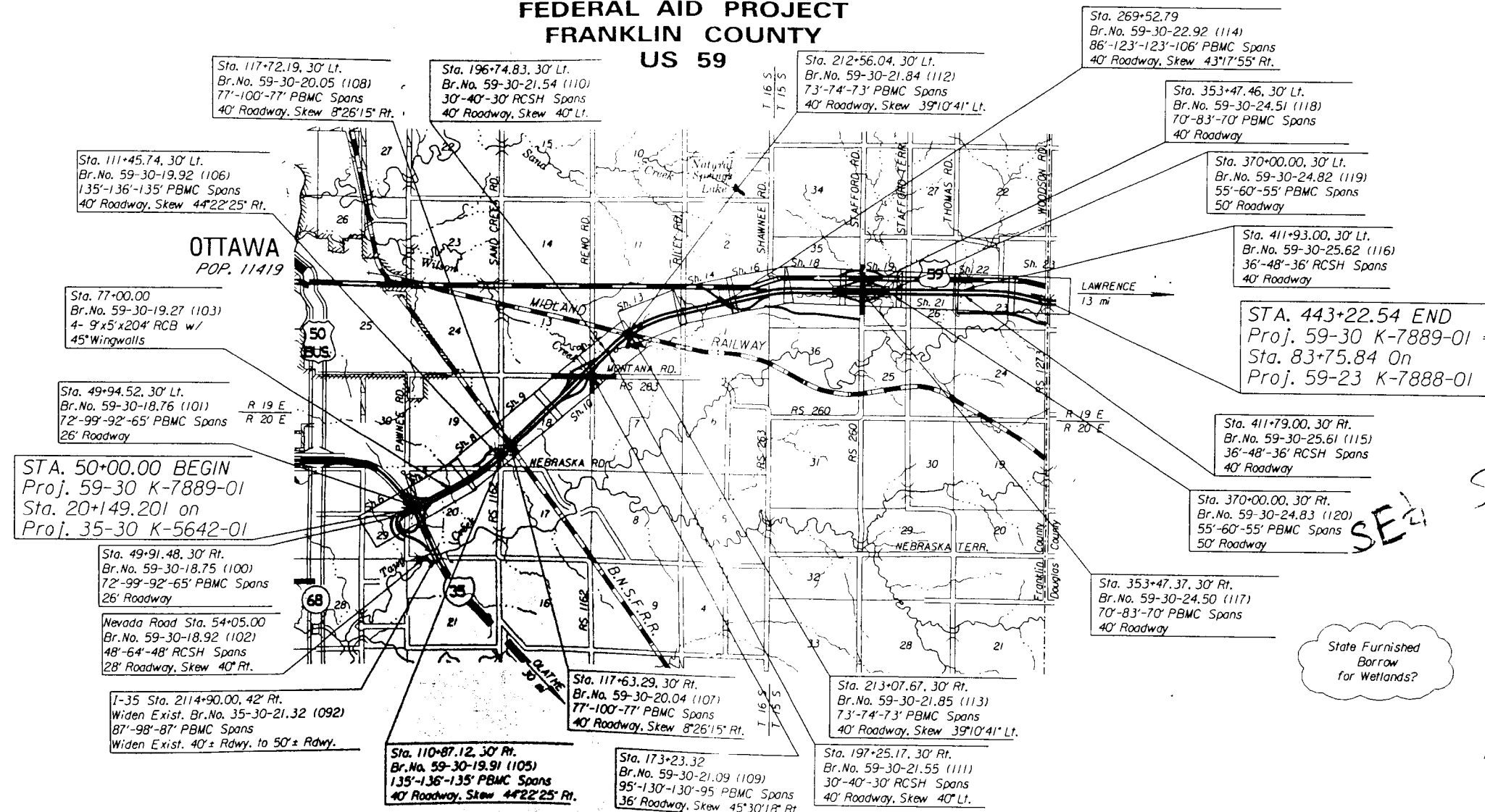
- | | |
|-----------|-------------------------|
| 1 | Title Sheet |
| 2 - 5 | Typical Sections |
| 6 - 40 | Plan & Profile Sheets |
| 41 - 86 | Interchange Details |
| 87 | Miscellaneous Details |
| 88 | Drainage Data Sheet |
| 89 - 130 | Bridge Sheets |
| 131 - 140 | Fencing Plans |
| 141 | Construction Sequencing |
| 142 - 144 | Drainage Area Sheets |

Volume 2

XS-1 - XS-260 Cross Sections

Volume 3

XS-261 - XS-417 Cross Sections



Scale = 1" : 4,000'

$\frac{D}{1-01} =$
 $\frac{3-01}{}$
 Sec 23 T 153 R 1E

Rt.
3 (120)
Spans

State Furnished
Borrow
for Wetlands?

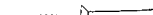
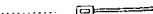
NOTE: TRAFFIC TO BE CARRIED THRU CONSTRUCTION.
FOR CONSTRUCTION SEQUENCE SEE SH. NO. 141

PLANS PREPARED AND SUBMITTED BY:
GEORGE BUTLER ASSOCIATES, INC.
LENEXA KANSAS

DESIGN DESIGNATION

AADT	(2007) =	6900
AADT	(2027) =	10500
DHV	=	11%
D	=	60/40
T	=	7%
V	=	70 mph
C of A	=	FULL
Clear Zone	=	34'

CONVENTIONAL SIGNS

COUNTY LINE		CENTER LINE OF PROJECT	
CITY LIMITS		TERRACE	
STATE OR NATIONAL LINE		CULVERTS	
TOWNSHIP, SECTION or GRANT LINE		DROP INLET & STORM SEWER	
PROPERTY LINE		ACCESS CONTROL	
HIGHWAY FENCE		POWER POLE	
EXISTING FENCE		TELEPHONE POLE	
GUARD FENCE		MARSH	
CONSTRUCTION LIMITS		HEDGE	
RIGHT OF WAY LINE		TREES	
TRAVELED WAY		PROFILE ELEVATION	
RAILROADS		STREAM or CREEK	

GROSS LENGTH OF PROJECT 39,322.54

EXCEPTIONS None

ADDITIONS None

NET LENGTH OF PROJECT 39,322.54 FT

NET LENGTH OF BRIDGES 1.5400

NET LENGTH OF ROAD 37.81154 FT

FEB 23 2005

RECOM. FOR APPROVAL-DATE

CHIEF, BUREAU OF DESIGN
KANSAS DEPARTMENT OF TRANSPORTATION

APPROVED - DATE

STATE TRANSPORTATION ENGINEER
KANSAS DEPARTMENT OF TRANSPORTATION

RECOM. FOR APPROVAL-DATE	
ENGINEER	
FEDERAL HIGHWAY ADMINISTRATION	
DEPARTMENT OF TRANSPORTATION	
APPROVED - DATE	
DIVISION ADMINISTRATOR	
FEDERAL HIGHWAY ADMINISTRATION	
DEPARTMENT OF TRANSPORTATION	