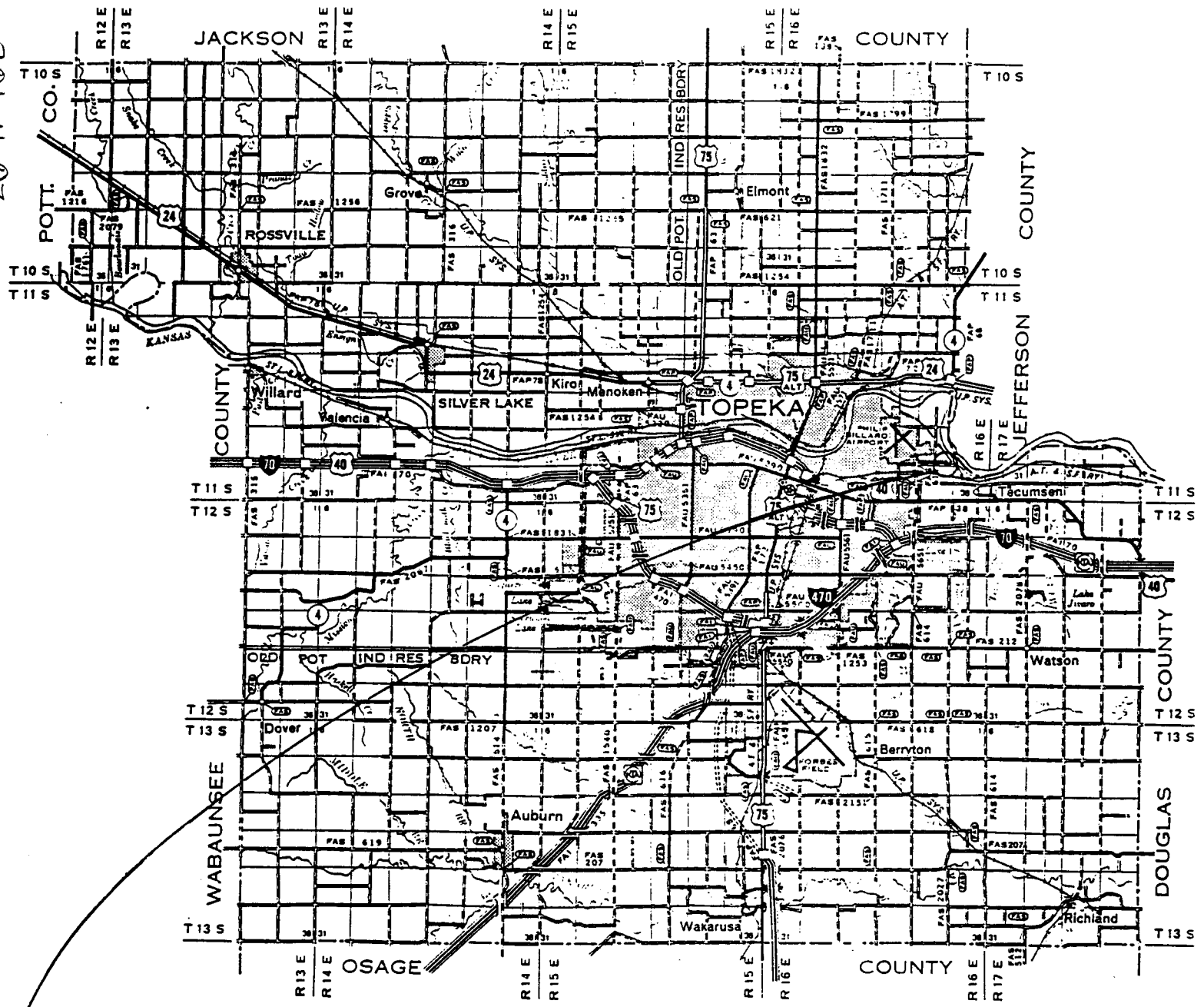


26-11-10E E2 SW



**GEOTECHNICAL UNIT
GEOLOGY SECTION**

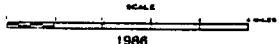
BRIDGE FOUNDATION GEOLOGY REPORT

**Project No. 004-089-K-3362-02
Bridge No. 26.80 Station 539+37.05**

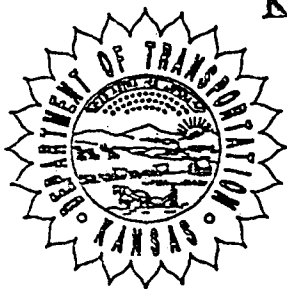
**West Bound Oakland Expressway Over Seward Avenue
Shawnee County**

**GENERAL HIGHWAY MAP
SHAWNEE COUNTY
KANSAS**

PREPARED BY THE
KANSAS DEPARTMENT OF TRANSPORTATION
BUREAU OF TRANSPORTATION PLANNING
IN COOPERATION WITH THE
U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION



KANSAS DEPARTMENT OF TRANSPORTATION



1. ROUTE-COUNTY NO. 004-089	7. SOUNDING NO. 1	8. SHEET 01 OF 02
2. BRIDGE STA. 539+37.05	4. PROJECT NO. K-3362-04	9. BRIDGE NO. 26.80
3. DESCRIPTION Oakland Expressway over Seward Ave.		10. HOLE STA. 540+38.41 Lt
6. GEOLOGIST Billinger	5. VERTICLE SCALE 1"=10'	11. DATE 2-3-94
7. DRILLER Sunderland/Shull	8. RIG B-61	12. ELEVATION TOP OF HOLE 869.9
13. GROUND WATER ELEV. 858.5	14. TOTAL DEPTH OF HOLE 77.5	15. ELEVATION TOP OF ROCK 821.0

BIT TYPE & NO.	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE			
							BLOWS	ELEV.		
			0°	869.9						
	Alluvium	Casing			Silt to silty Clay brown	0.461		866.9		
						860	0.436		861.9	
							0.586		857.1	
							0.621		852.1	
					21°	850				
						848.9	fine silty Sand, soft, gray	0.595		847.1
					26°	843.9			4	842.4
						840	Sand, nearly clean coarse, some small gravel		7	838.4
						830				
					48°	821.0				
Diamond	Avoca Mbr.		1	53°	816.9	905.036		819.8		
				54.5	815.4	196.749		816.9		
	King Hill Mbr.		2	56.7	813.2	7.791		815.8		
				3	60.2	810				
					809.7					
	Beil Mbr.			63.3	806.6					
					801.9					
Queen Hill Mbr.			72.3	797.5						
Big Springs Mbr.			75.4	794.5						
Andover Mbr.			76.5	793.0						
Spring Branch Mbr.			77.5	792.0						

TD 15. Shaly

Core Descriptions

004-089-K-3362-04

01 of 02

Core 1

49⁰-53⁵

49⁰-49³ Limestone, hard, gray, impure, fossiliferous

Cored 4⁵

49³-49⁶ Shale, dark gray

Recov. 4⁵

49⁶-53⁰ Limestone, gray, hard, unit bedded

Avoca Ls.

RQD = $\frac{42}{45} \times 100$
= 93.3%

fossiliferous

53⁰-53³ shale, dark gray

King Hill shale

53³-53⁵ Shale, gray-green, very firm

Sample 1 49⁸-50⁰⁵ Limestone, hard, gray, unit bedded

Sample 2 52⁴-53⁰ Limestone, hard, dark gray, unit bedded

Core 2

53⁵-57⁵

53⁵-54⁵ Shale, green, very firm

Cored 4⁰

54⁵-55⁶ Limestone, green shale filling cracks
old Paleosol horizon, earthy

Recov. 4⁰

55⁶-56⁷ Limestone, gray-green, shaly, earthy.

RQD = $\frac{39}{40} \times 100$
= 95%

56⁷-56⁸⁵ Shale, limy, green-gray

56⁸⁵-57⁴ Limestone, light gray-green, hard, impure

57⁴-57⁵ Shale, limy, firm, green-gray

Sample 3 53⁶-54¹ Shale, greenish, very firm

Sample 4 56²-56⁷ Limestone, shaly, gray-green, impure

Core 3

57⁵-59²

57⁵-59² Shale, gray-green, firm

Cored 1⁷

Recov. 1⁰

lost 0⁷

(lost 0⁷ due to sand flowing in barrel)
plugging bit

RQD = $\frac{10}{17}$
= 58.8%

KANSAS DEPARTMENT OF TRANSPORTATION

Report of sample of Geology Cores

Laboratory No. 94-0302

Date Rep'td. February 9, 1994

Date Rec'd. February 4, 1994

Specification No. - - Quantity - - -

Source of material Project

Sample from Project

Submitted by John Jimenez, Lawrence Geology Office

Identification marks Tags with samples

Project or POV 4-89 K-3362-04, Bridge #26.80, Shawnee County, District 1

Type of construction Bridge Seward Ave.

TEST RESULTS

Sample No.	Station	Dist.ft. CL	Depth ft.	Description	Qu. t.s.f.	Sample p.c.f. by Dry Wt.	Moisture (% of Dry Wt.)
AVoca LS CD-1	540+38	41' Lt	498-50 ⁰⁵	Ls, unit bedded	905.036	165.1	0.8
CD-2	"	"	524-530	" " "	196.749	155.2	3.6
King Hill Shale CD-3	"	"	536-541	Sh, green	7.791	131.0	10.8
CD-4	"	"	562-567	Ls, impure, greenish *			

* CD-4 was broken in several pieces. All were too small to test.

cc: L.S. Ingram
L.A. Rockers
J. Jimenez
J.J. Brennan
Soil Section
File

Reported by James J. Brennan

Title James J. Brennan, Soils Engineer