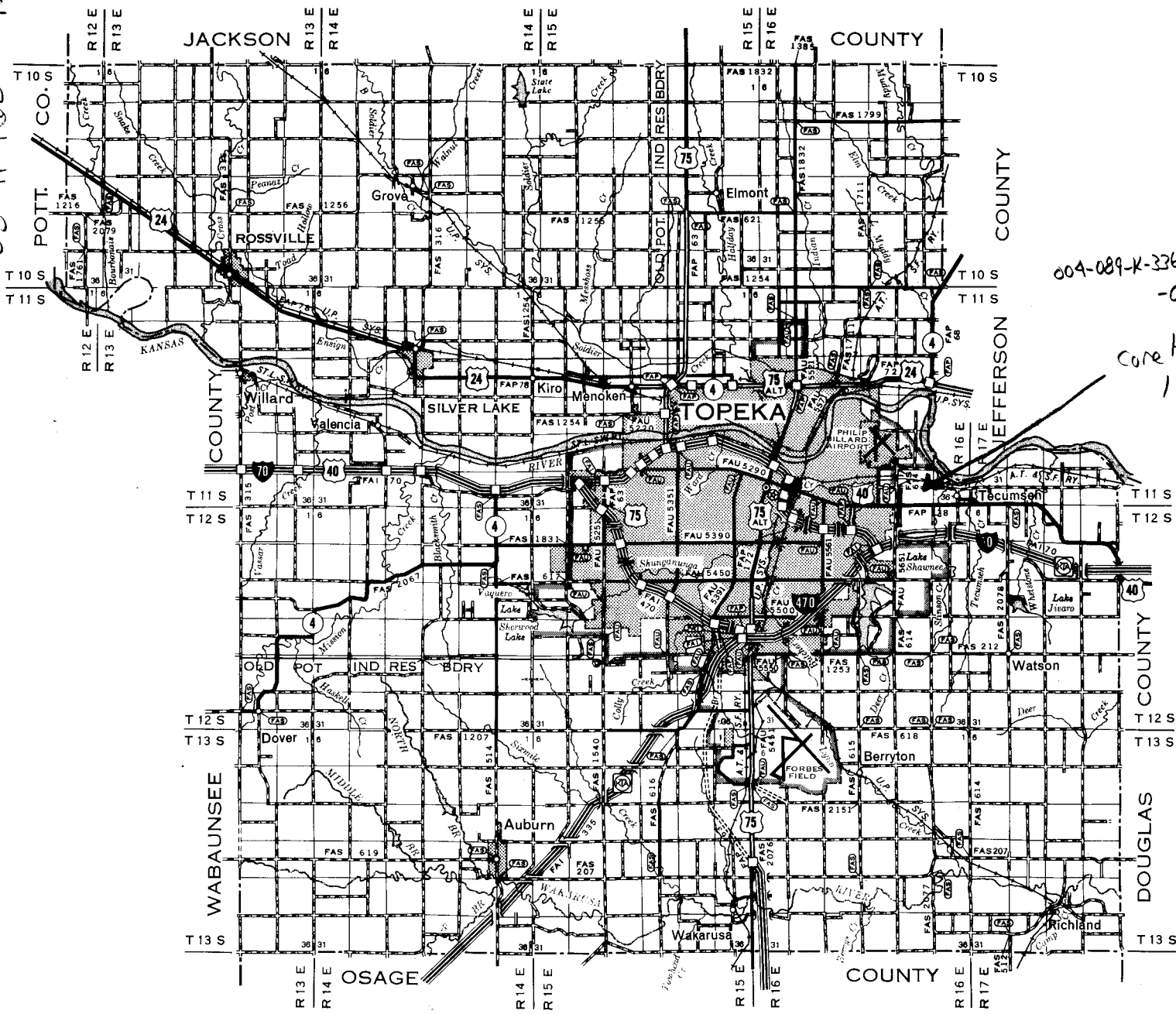


35-11-16E
NW NW NW SE
Oakland Expressway over SE 2nd street
In topeka



LEGEND

ROADS AND ROADWAY FEATURES		ROAD SYSTEM DESIGNATION	
PRIMITIVE ROAD	=====	FEDERAL-AID INTERSTATE HIGHWAY SYSTEM	FAI
UNIMPROVED ROAD	-----	FEDERAL-AID PRIMARY HIGHWAY SYSTEM	FAS
GRADED AND DRAINED ROAD	=====	FEDERAL-AID SECONDARY HIGHWAY SYSTEM	FAS
SOIL SURFACED ROAD	-----	INTERSTATE NUMBERED HIGHWAY	70
GRAVEL OR STONE ROAD	=====	U.S. NUMBERED HIGHWAY	40
NOT GRADED OR DRAINED	-----	STATE HIGHWAY SYSTEM OR	20
GRAVEL OR STONE ROAD	=====	STATE NUMBERED HIGHWAY	20
GRADED AND DRAINED	-----	END OF DESIGNATED SYSTEM OR	24
GRAVEL OR STONE ROAD WITH	=====	MARKED ROUTE	24
STABILIZED SURFACE	-----		
BITUMINOUS ROAD-LOW TYPE	=====		
PAVED ROAD	-----		
DIVIDED HIGHWAY	=====		
HIGHWAY WITH FULL CONTROL OF	-----		
ACCESS AND INTERCHANGE	=====		

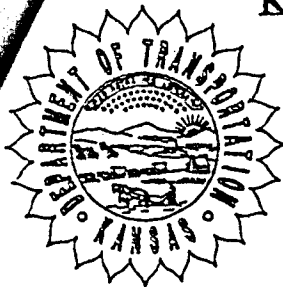
POLYCONIC PROJECTION
 KEY TO COUNTIES
 FA SYSTEM REVISED TO MAR. 15, 1988

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

SCALE
 0 1 2 3 4 MILES
 1988

KANSAS DEPARTMENT OF TRANSPORTATION



1. ROUTE-COUNTY NO. 004-089	7. SOUNDING NO. 1	2. SHEET 01 OF 03
3. BRIDGE STA. 511+87.21	6. PROJECT NO. K-3362-04	5. BRIDGE NO. 26, 28
4. DESCRIPTION W.B. Oakland Expressway over SE 2 nd st.		8. HOLE STA. 510+85.42 Lt C
9. GEOLOGIST Billinger	10. VERTICLE SCALE 1"=10'	7. DATE 1-5-94
11. DRILLER Shull	12. RIG B-61	13. ELEVATION TOP OF HOLE 889.7
14. GROUND WATER ELEV. —	15. TOTAL DEPTH OF HOLE 76.2	16. ELEVATION TOP OF ROCK 884.3

BIT TYPE & NO.	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION , AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							Depth	ELEV.
	Mantle		0°	889.7				
			5'	884.3	Brown Clay grading to an orange till. Small erratic gravel.	1.41	4°	885.7
	Ozawkie Mbr.		10°	880	Limestone, weathered, orangish, Vuggy, fossiliferous	131.59	8°	881.4
			2	879.7		2.52	11°	878.1
			3		Shale, gray-green, sandy. numerous hard sandstone lenses.	4.85	16°	873.7
			4	870		7.07	21°	868.7
			5		Shale, gray grading to dark gray, clayey with sandy zones.	4.56	24'	865.6
			6	860		20.04	31°	858.2
	Tecumseh Frm.		7			11.53	35°	854.7
			8	850		25.93	38°	850.9
			9		Shale, dark gray, clayey, very firm	21.51	43°	845.9
			10	840		14.95	48°	841.1
			70°	820				
	Avoca Mbr.		74°	815.3	Limestone, hard unit bedded, shaly break ± 1° from top of thick			
	King Hill Mbr.		76°	812.8	Shale, gray green, very firm			
				810	grades to limy. shale lower 05			

Shelby

KANSAS DEPARTMENT OF TRANSPORTATION

Report of sample of Geology Cores

Laboratory No. 94-0022

Date Rep'td. January 18, 1994

Date Rec'd. January 06, 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 #26.28, Shawnee County, District 1

Type of construction Bridge

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.)
Sh-1	510+85	42 Lt	20-40	Clay, Till	1.412	94.1	17.0
CD-1	"	"	76-825	Ls orange weathered	131.596	137.1	8.7
CD-2	"	"	1085-116	Sh, olive gray	2.519	118.3	16.0
CD-3	"	"	151-160	Sh, Sandy	4.850	121.3	14.3
CD-4	"	"	201-210	Shale, gray, firm	7.075	123.7	12.3
CD-5	"	"	235-241	" " "	4.563	121.0	13.9
CD-6	"	"	3075-315	" " "	20.040	130.1	10.7
CD-7	"	"	3435-350	" " "	11.533	128.5	11.4
CD-8	"	"	380-388	" " "	25.929	131.3	10.6
CD-9	"	"	433-4385	" " "	21.514	132.0	10.6
CD-10	"	"	480-486	" " "	14.956	123.9	11.7

See attached routine analysis results.

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

Project # 004-089-K-3362-02

SE 2nd Street Bridge

all road Expressway over
SE 2nd Street in Tappan

Core hdel	889.7	0°-20
L09		20-40
Sta 510 185, 12 ft & project		
B-61		40-54
Randy, Harold, Bryan.	884.3	54-10°5
Matt, John A.	879.7	10°5 - 184
		184-365
		365-704
	819.3	704-709
		709-713
		713-744
	815.3	744-765
		765-769
	812.8	769

matrix, Clay, brown
shaly 1. pushed 20, Recou 1² clay, glacial
till, orange, small erratic gravel mixed.
matrix, till orange
LS, weathered, orange, vuggy, hard, fossiliferous (R)
Shale, olive gray, sandy, ss lenses
Shale, gray grading to dark gray, clayey
to sandy, scattered ss lenses, grades
shale, dark gray, clayey, very firm.
lower 05 grades to limy shale
LS, hard
LS shaly
LS, hard, unit bedded
Shale, limy, gray-green
Shale, more limy
S15

Avoca
LS

King Hill
shale

Note:

Casing 0°-54
Cored 55-50°
Shot 50°-769

Core hole 1SE 2nd Street BridgeCore 1
55-76

55-76

Cored 2'

Recou. 752'

RAD = $0/2' \times 100$
= 33%LS, iron weathered, orange, waxy
fossiliferous, hard

(R)

No Sample taken

Core 2
76-12276-105
105-122

Cored 46

Recou 46

RAD $36/46 \times 100$
= 78.2%sample 1 76-825
sample 2 1085-116LS, weathered, waxy, orange,
shale, olive, gray, clayey, firmCore 3
122-170

122-170

Cored 44

Recou. 44

RAD = $36/44 \times 100$
= 81%

sample 3 151-160

LS, weathered, orange
shale, olive gray, clayey
shale, sandy, hard iron ss lenses
gray-greenshale, sandy, gray-green, ss lenses
very firm

151-160

Core 4
170-215170-184
184-215

Cored 45

Recou 45

RAD $34/45 \times 100$
= 71%

sample 4 201-210

shale, sandy, gray green
shale grades to dark gray, clayey, firm
some ss lenses in upper part

shale, gray, clayey firm

Core 5
215-265
cored 5'
Recov. 5'
RAD = $3\frac{5}{50}$
= 70% / Sample 5
225-241

Shale, dark gray, clayey, Firm

Core 6
265-315
cored 5'
Recov. 5'
RAD = 100% Sample 6
305-315

Shale, dark gray, Firm, clayey

Core 7
315-365
cored 5'
Recov. 5'
RAD = $4\frac{3}{50}$ = 86% Sample 7
3435-350

Shale, dark gray, clayey to Sandy in
Zones, very firm

Core 8
365-413
cored 4'8"
Recov. 5' Sample 8
380-388

Shale, dark gray, clayey

RAD $2\frac{5}{40}$ = 52% Sample 8
RAD may actually be higher.
believe we broke some.

Shale, gray, very firm

Core 9

413-458

Core 45

Recor. 45

RQD = 100%

Sample 9

43³-43⁸⁵

Shale, dark gray, very firm

Shale, gray, firm

458-50⁰

Shale, dark gray, very firm

Core 10

458-50⁰

Core 42

Recor. 39

RQD = 100%

Sample 10

48⁰-48⁶

Shale, gray