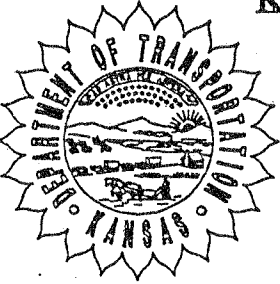


KANSAS DEPARTMENT OF TRANSPORTATION



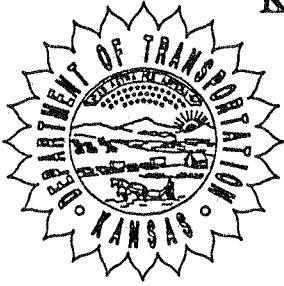
1. ROUTE-COUNTY NO. 004-089	7. SOUNDING NO. 1	12. SHEET 01 OF 05
2. BRIDGE STA. 637+48.25	8. PROJECT NO. K-3362-01	13. BRIDGE NO. 28.66
3. DESCRIPTION Oakland Expressway	14. HOLE STA. 671+12	15. DATE 3-20-93
4. GEOLOGIST Billinger	5. VERTICLE SCALE 1" = 10'	16. ELEVATION TOP OF HOLE 965.6
6. DRILLER Eudenkauf/Bergman	10. RIG B-61	17. ELEVATION TOP OF ROCK 961.9
9. GROUND WATER ELEV. 958.6	11. TOTAL DEPTH OF HOLE 843	

22-106
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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°	965.6				
	DuBois Limestone		6.4	960	Weathered shale Limestone and limy shale			
	Tuner Creek shale		8'	957.5	shale, brown	435.1		957.0
	Sheldon Ls.		10 ⁵	955.1	Limestone, light gray			
	Jones Point Shale		14 ⁴	950	shale, gray	5.88		952.6
	Curzon Limestone				Limestone, gray, massive impure upper 20 feet oolitic lower 10 feet	831.7		950.4
	Jones Point Shale		23°	942.6		416.5		945.1
	Hartford Limestone		24.2	940	shale, gray,	3.4		941.9
	Calhoun Shale		31°	934.6	Limestone, gray, unit bedded, dense.	140.8		939.4
	Calhoun Shale		35°	930	shale, sandy	584.7		936.1
	Calhoun Shale		40 ⁷	924.9	Sandstone, shaly, gray	14.9		933.8
	Calhoun Shale		44 ⁵	920	shale, sandy, sandstone lenses.	53.4		928.7
	Calhoun Shale		49°	916.6	Sandstone, gray	140.3		926.1
	Calhoun Shale			910	shale, sandy, lensing sand and sandstone, gray	58.2		923.7
	Calhoun Shale		61 ⁴	904.2		78.2		920.4
	Calhoun Shale		62.8	902.8	Sandstone	13.5		916.9
	Calhoun Shale			900	shale, sandy	39.7		912.1
	Calhoun Shale				shale, silty to clayey	88.8		906.2
	Calhoun Shale					54.8		900.7
	Calhoun Shale					73.2		896.2

Diamond

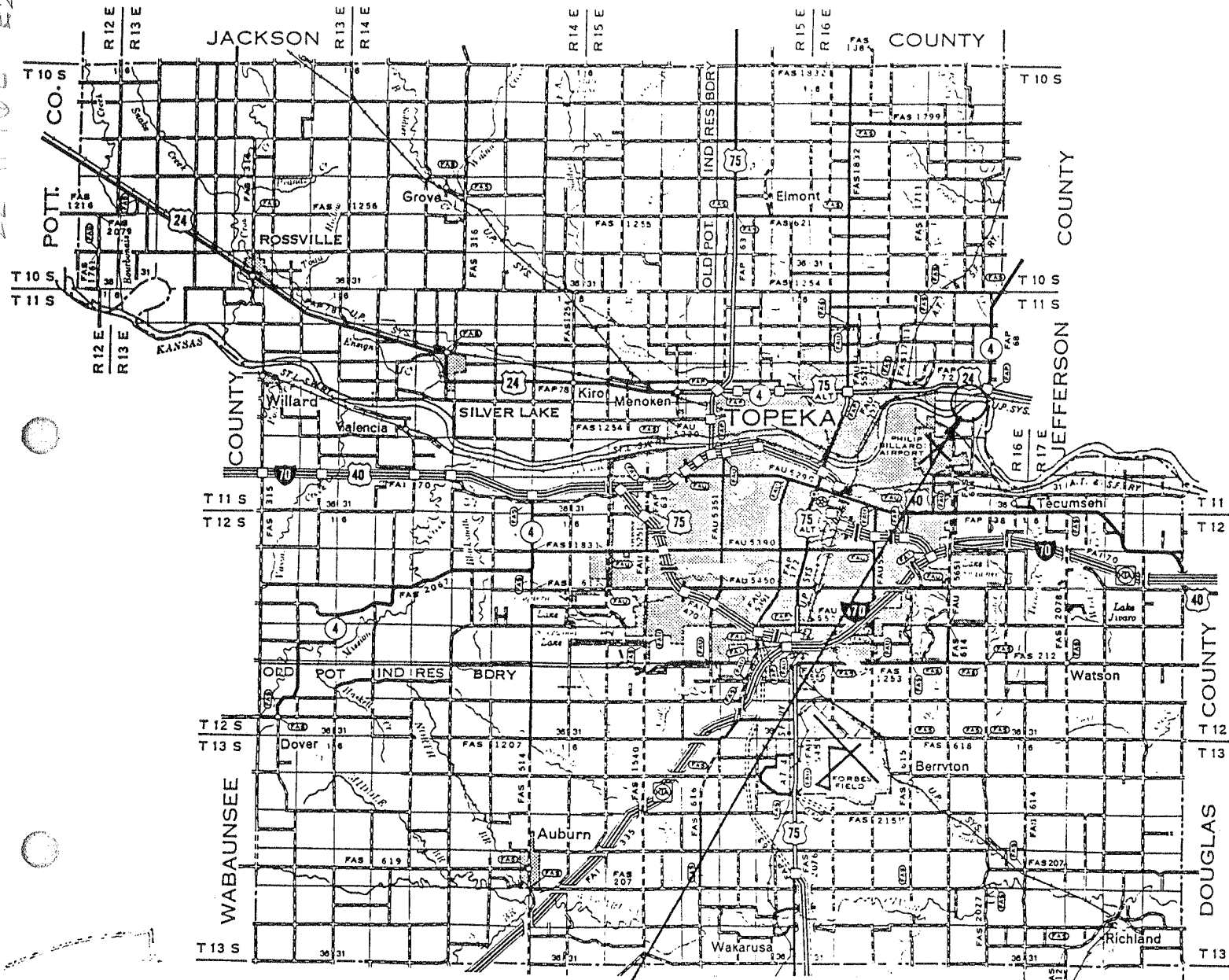
KANSAS DEPARTMENT OF TRANSPORTATION



1. ROUTE-COUNTY NO. 009-089	7. SOUNDING NO. 1	12. SHEET 02 OF 05
2. BRIDGE STA. 637+48.25	8. PROJECT NO. K-3362-01	13. BRIDGE NO. 28.66
3. DESCRIPTION Oakland Expressway		14. HOLE STA. 671+12
4. GEOLOGIST Billinger	5. VERTICLE SCALE 1" = 10'	15. DATE 3-20-93
6. DRILLER Eudenkauf/Bergman	9. RIG B-61	16. ELEVATION TOP OF HOLE 965.6
11. GROUND WATER ELEV. 958.6	10. TOTAL DEPTH OF HOLE 843	17. ELEVATION TOP OF ROCK 961.9

BIT TYPE & NO.	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV.
Diamond	Calhoun shale	14 15 16	798	890	Shale, silty to clayey dark gray	98.7		891.8
				885.8		24.8	888.5	
Engine Creek		17	843	881.3	Limestone, hard, wavy bedded, gray	380.6		885.0
						698.3	882.4	

22-11-16 E2 E2



Proj.No. 004-089 K-3362-05
 Br.No. 004-089-28.66
 Oakland Expressway over the Kansas River
 Sta.637+48.25
 Shawnee County

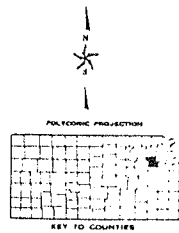
LEGEND

ROADS AND ROADWAY FEATURES

PRIMITIVE ROAD	.....
UNIMPROVED ROAD	.....
GRADED AND DRAINED ROAD	.....
SOIL SURFACED ROAD	.....
GRAVEL OR STONE ROAD	.....
NOT GRADED OR DRAINED	.....
GRAVEL OR STONE ROAD	.....
GRADED AND DRAINED	.....
GRAVEL OR STONE ROAD WITH STABILIZED SURFACE	.....
BITUMINOUS ROAD-LOW TYPE	.....
PAVED ROAD	.....
DIVIDED HIGHWAY	.....
HIGHWAY WITH FULL CONTROL OF ACCESS AND INTERCHANGE	.....

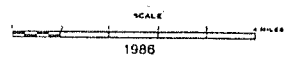
ROAD SYSTEM DESIGNATION

FEDERAL-AID INTERSTATE HIGHWAY SYSTEM	.....
FEDERAL-AID PRIMARY HIGHWAY SYSTEM	.....
FEDERAL-AID SECONDARY HIGHWAY SYSTEM	.....
INTERSTATE NUMBERED HIGHWAY	.....
U S NUMBERED HIGHWAY	.....
STATE HIGHWAY SYSTEM OR STATE NUMBERED HIGHWAY	.....
END OF DESIGNATED SYSTEM OR MARKED ROUTE	.....



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



FA SYSTEM REVISED TO MAR. 15 1988