FED ROAD DIST NO	STATE	W.E.R. PROJ NO	F.A.S. PROJ NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	KANSAS	3	190A(1)	1944	31	10

ARKANSAS

Sand Island

Temporary Pile Trestle Bridge
Constructed by Sedgwick Co. Aug. 1908

Curve Data:
Δ-11°-0' Lt.
D-3°-0'
L-364.66'
T-183.92'
R-1909.80

℄ Traveled Way

R/W 50'

Section Line

Sta 27+31.6

Sta 29+57.08

Sta 36+31

Sta 43+26.04

DERBY

Curve Data:
Δ-10°-27'-25" Rt.
D-3°-0'
R-1909.80
T-176.77'
L-348.53

Sta 36+31, Bridge Contractor to construct 75'-5@90'-75' Cont. Steel Beam Spans on Dumb-bell Piers and U Abutments.

Sta 26+12 & 68' Lok Truss
To remain in place. (Overflow)

Sec. 11-T29S-R1E

Sec. 12-T29S-R1E

RIVER

Scale 1"=100'

P.I. Ref. Sta 29+57.08
1-2"x2" Tacked Hub @ P.I.

P.O.T. Ref. Sta. 30+64.59
1-2"x2" Tacked Hub @ P.O.T.

P.O.T. Ref Sta. 36+56.06
1- Iron Pin @ P.O.T

P.I. Ref. Sta. 43+05.08
1- Iron Pin @ P.I.

STA. 36+31

CONTOUR MAP

ARKANSAS RIVER BRIDGE NEAR DERBY

WER-3 & FAS-190A(1) SEDGWICK CO.

FINNEY & TURNIPSEED
CONSULTING ENGINEERS
TOPEKA KANSAS

REG. CAL. DIST. NO.	STATE	R. A. S. PROJ. NO.	F. AID PROJ. YEAR	SHEET NO.	TOTAL SHEETS
5	CALIF.	10	1942	2	

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	NOTE BOOK ENTRY CHECKED		
	NOTE BOOK CHECKED		

Sta. 0:00 - Stone - Center of Sec. 11 - T. 39 S. - 21 E.

Sec. 11 - T. 39 S. - 21 E.

Shelter Belt

Farm Ent.

Shelter Belt

Farm Ent.

Side Road

Note: USED TBM IS RR Spk. in N side same pole # 134 Elev 1249.154 } 749.95

B.M. #1 - Spk. Stee in M.L. 2 } Note: This pole
21 Sta 0-30 Elev 504.70 } has been replaced

Note: Bridge Removed
B.M. #3 "+" on S.E. Wingwall at O'Flow Br.
Sta. 26+55.5 Elev 499.65

H.W. Elev. 501.05 (1940)

PROFILE	SURVEYED	BY	DATE
	PLOTTED	Geo.	4-22-42
	NOTE BOOK	GRADE CHECKED	
	NO.	BRIDGE & STRUCTURE NOTIFIED CH'KD.	

PLATE 1—PLAN-PROFILE © P. R. & R. E. STANDARD
BEMIS & ESSER CO. NEW YORK.

FED ROAD DIST. NO.	STATE	W.E.R. PROJ. NO.	F.A.S. ROUTE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	3	190A(11)	1944	3	10

P.I. Ref. Sta 20+57.08
1. 2"ø" Hub @ P.I.

P.O.T. Ref. Sta 31+64.59
1. Iron Pin @ P.O.T.

P.O.T. Ref. Sta 38+56.06
1. Iron Pin @ P.O.T.

P.I. Ref. Sta 42+07.08
1 Iron Pin @ P.I.

BRIDGE, 15° Cut

Curve Data
Δ = 17°00' Lt.
D = 3°-00'
R = 1909.30'
T = 183.92
L = 366.66'

P.C. = 73+16.

Old Structure + 5-80 Pony Trusses Destroyed by Flood 1944

Temporary Pile Trestle Constructed by Sedgwick County in Aug 1944 (Now in service)

℄ traveled way

RW 50'℄

Sta. 26+21.4 ℄ 68' Low Truss (Over Flow Bridge) To remain in place.

Sec. 11-T29S-R1E.

Sec. 12-T29S-R1E

Crown Grade 1283.54

Sec. Line

STA. 33+29.25 BEGIN
Project No. 157-WER 3 & FAS 190 (11)

Sta. 38+31 Bridge Contractor to construct Bridge No 75-S@10-15 Cont. Steel Beam Spans. Dumb-bell piers & U-Abutments at Rlwy.

P.C. = 139.82

STA. 39+32.75 END
Proj 157-WER 3.3 FAS 190 (11)

CITY LIMITS +00

P.I. = 138.84

P.C. = 142+58.6

DERBY KANSAS

5th Street

Washington Ave.

Garage

790 K. CLEVELAND

356 A.T. & S.F. R.R.

725 S.F. & GULF MORE

General Notes: Additional R/W required to be furnished by Sedgwick County. Earth Approaches to Bridge to be constructed by Sedgwick County.

Curve Data
Δ = 16° 27.55' Rt.
D = 3.00°
R = 1109.80'
T = 174.77
L = 318.93'

+743.45 to MSL

B.M. #3 x cut on S.E. Wing Wall at Down Str. Sta. 26+55.5 Elev. 50.00

B.M. #4 Std. Spike in 30" Cottonwood 130.55 Sta. 32+84.59 Elev. 500.00

B.M. #5 Std. Spk. in 8" Tree 2.21 Sta. 33+46. Elev. 498.61

B.M. #7 X-cut on S.W. Cor. of Conc. Base Wing Str. (1) Sta. 49+19.9 Elev. 542.90

B.M. #8 Spk. Stop in Guy Pole Rt. Sta. 52+33 Elev. 543.60

Future Grade 0.00%

200' V.C.

300' V.C.

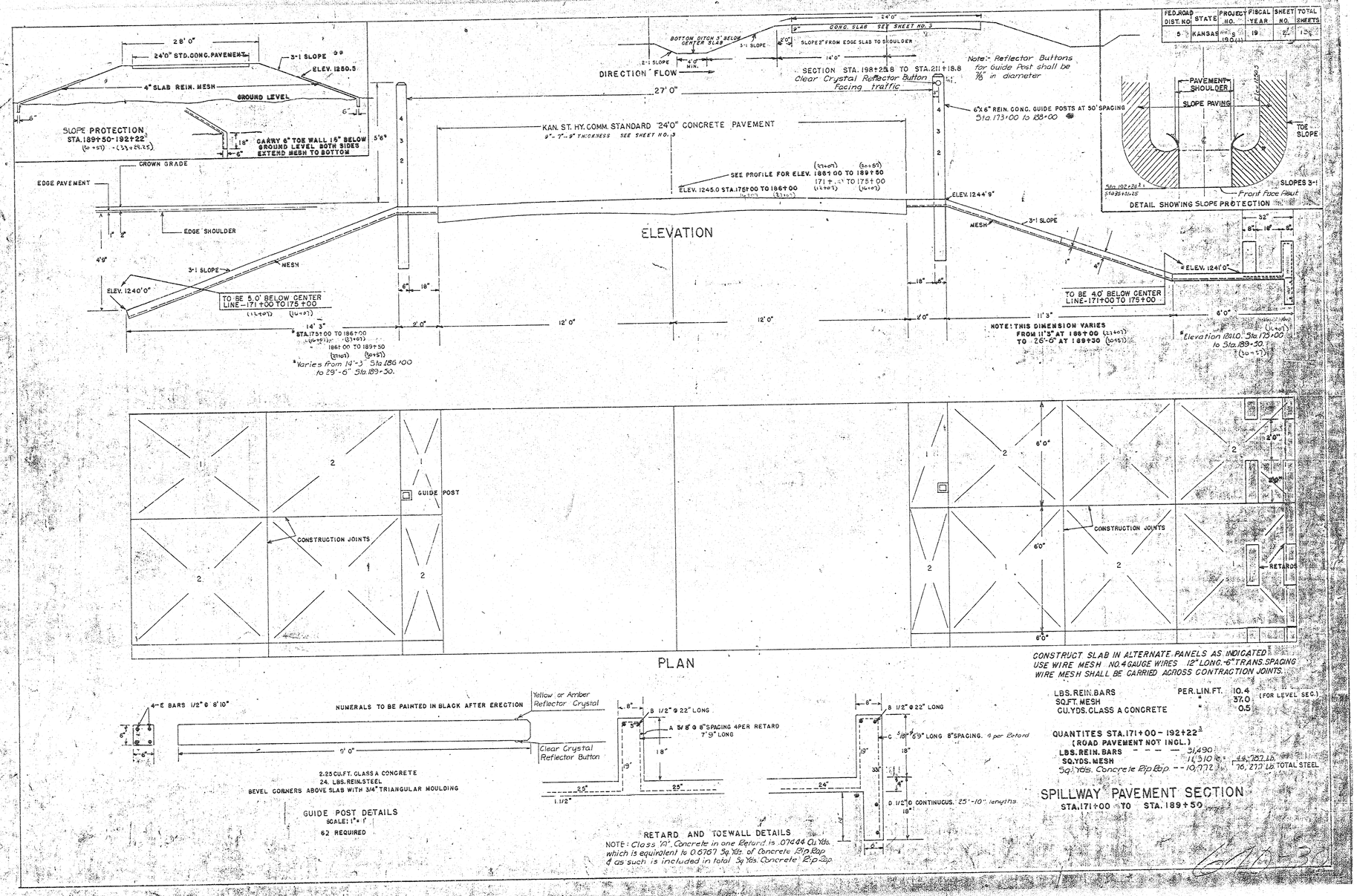
1244.50 MSL

500' V.C.

PLATE 1—PLAN—PROFILE O. F. A. & R. E.
CHARLES BRUNING COMPANY, INC.

Rd 639-30

FED.ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	S (90-41)	19	9	13



LBS. REIN. BARS	PER. LIN. FT.	110.4
SQ. FT. MESH	"	37.0 (FOR LEVEL SEC.)
CU. YDS. CLASS A CONCRETE	"	0.5

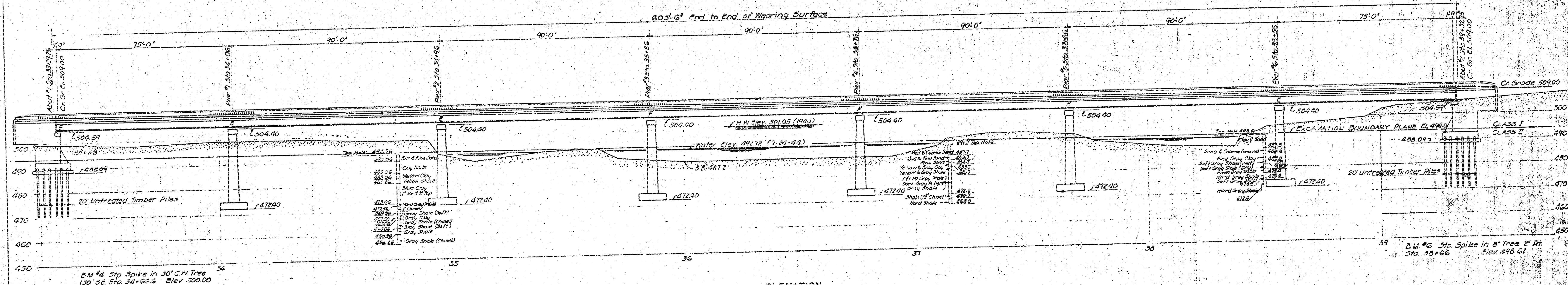
QUANTITES STA. 171+00 - 192+22
(ROAD PAVEMENT NOT INCL.)

LBS. REIN. BARS	31,490	
SQ. YDS. MESH	14,310	14,787 Lb. TOTAL STEEL
Sq. Yds. Concrete Rip Rap	10,772	16,277 Lb. TOTAL STEEL

SPILLWAY PAVEMENT SECTION

STA. 171+00 TO STA. 189+50

FED ROAD DIST. NO	STATE	W.E.R. PROJ. NO	F.A.S PROJ. NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	KANSAS	3	190 A(1)	1944	5	10



ELEVATION
75-5@90-75 CONTINUOUS BEAM SPANS
DUMB-BELL PIERS & U-ABUTMENTS
24 FT. ROADWAY

GENERAL NOTES

DESIGN: A.A.S.H.O. Specs. Ed. 1941. H-15 Loading. Structural Steel 18000 lbs. per sq. in. Reinforcing Steel 20000 lbs per sq. in. Concrete 1200 lbs. per sq. in.

EXCAVATION: Elev. 494.00 shall designate the excavation boundary plane. Class I above the plane, Class II below. See 'Bridge Excavation' sheet for limits of pay excavation.

REINFORCING STEEL: All reinforcing steel shall be billet steel, intermediate grade.

~~TEST PILES: Two untreated timber test piles shall be driven at the locations shown on the plans or as directed by the Engineer. Test piles shall be cut off two feet below ground level or removed at the option of the Contractor.~~

UNTREATED TIMBER PILES: All piles shall be driven to a minimum computed bearing value of 18 tons per pile. All piling shall be driven to a penetration into shale unless in the opinion of the Engineer such penetration cannot be secured without injury to the pile.

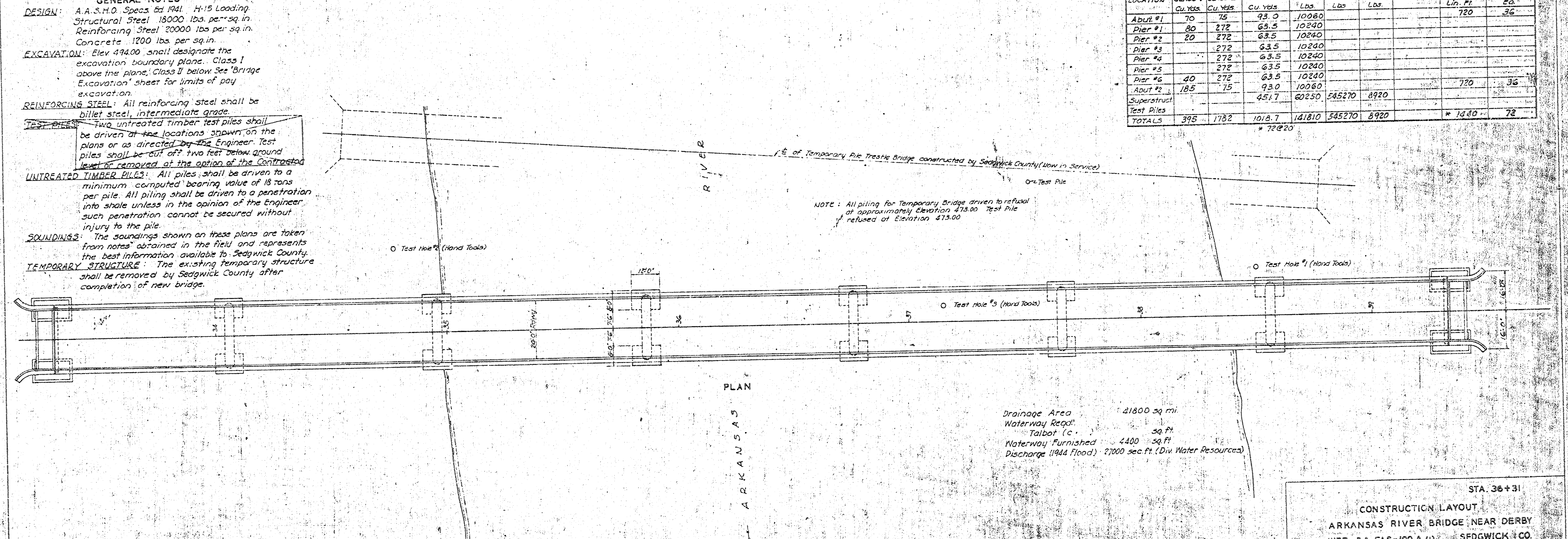
SOUNDINGS: The soundings shown on these plans are taken from notes obtained in the field and represents the best information available to Sedgwick County.

TEMPORARY STRUCTURE: The existing temporary structure shall be removed by Sedgwick County after completion of new bridge.

SUMMARY OF QUANTITIES

LOCATION	EXCAVATION CLASS I Cu. Yds.	EXCAVATION CLASS II Cu. Yds.	CONCRETE CLASS A Cu. Yds.	STEEL REINF Lbs.	STEEL STRUCT Lbs.	BEARING DEVICES Lbs.		UNTREATED TIMB. PILES Lin. Ft.	METAL PILE POINTS Ea.
Abut #1	70	75	93.0	10060				720	36
Pier #1	80	272	63.5	10240					
Pier #2	20	272	63.5	10240					
Pier #3		272	63.5	10240					
Pier #4		272	63.5	10240					
Pier #5		272	63.5	10240					
Pier #6	40	272	63.5	10240					
Abut #2	185	75	93.0	10060				720	36
Superstruct.			451.7	60250	545270	8920			
Test Piles									
TOTALS	395	1782	1018.7	141810	545270	8920		* 1440	72

* 72@20'



PLAN

Drainage Area 41800 sq. mi.
Waterway Reqd.
Talbot (c) sq. ft.
Waterway Furnished 4400 sq. ft.
Discharge (1944 Flood) 27000 sec. ft. (Div. Water Resources)

STA. 36+31

CONSTRUCTION LAYOUT
ARKANSAS RIVER BRIDGE NEAR DERBY
WER-3 & FAS-190 A (1) SEDGWICK CO.

FINNEY & TURNIPSEED
CONSULTING ENGINEERS
TOPEKA KANSAS