

STATE OF KANSAS STATE HIGHWAY COMMISSION SEDGWICK COUNTY PLAN AND PROFILE

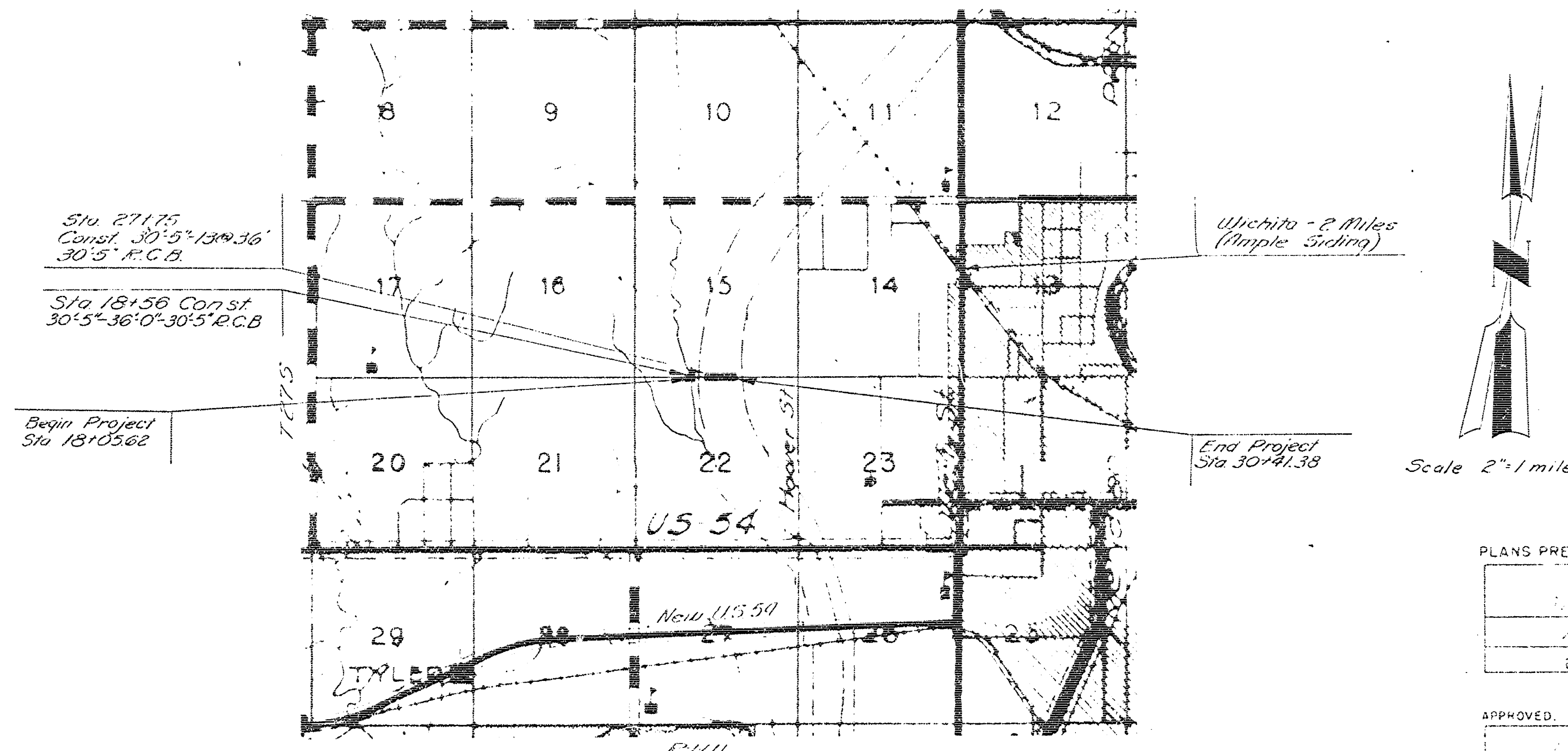
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SUMMARY OF QUANTITIES (COMBINED)	
Concrete Class A (AE)	79,41 CY
Reinforcing Steel	189,100 Lb
14"x14" Conc. Piling	4,070 LF
Bearing Devices	7,570 Lb
Metal Handrail	1,291.5 LF
Structural Steel	22,150 Lb

CONVENTIONAL SIGNS

COUNTY LINE	----
SECTION LINE	----
WIRE FENCE	-----X-----
HEDGE ROW	~~~~~
RAILROAD	=====
SURVEY LINE	-----
RIGHT OF WAY	=====
TELEPHONE	◆-----
POWER POLE	▲-----
TRAVELED WAY	=====
CITY LIMITS	=====
TOWNSHIP BOUNDARY	=====



BRIDGES ONLY

PLANS PREPARED BY:	
COUNTY ENGINEER	
DATE: 11-30-1953	

APPROVED:	
COUNTY COMMISSIONER	
DATE: 11-30-1953	

GROSS LENGTH OF PROJECT 1235.76 FT. 0.234 MILES
EXCEPTIONS 602.26 FT. 0.114 MILES
ADDITIONS
NET LENGTH OF PROJECT 633.50 FT. 0.120 MILES
NET LENGTH OF BRIDGES 633.50 FT. 0.120 MILES
NET LENGTH OF ROAD FT. MILES

RECOMMENDED FOR APPROVAL DATE

ENGINEER OF SECONDARY ROADS
STATE HIGHWAY COMMISSION OF KANSAS

APPROVED DATE

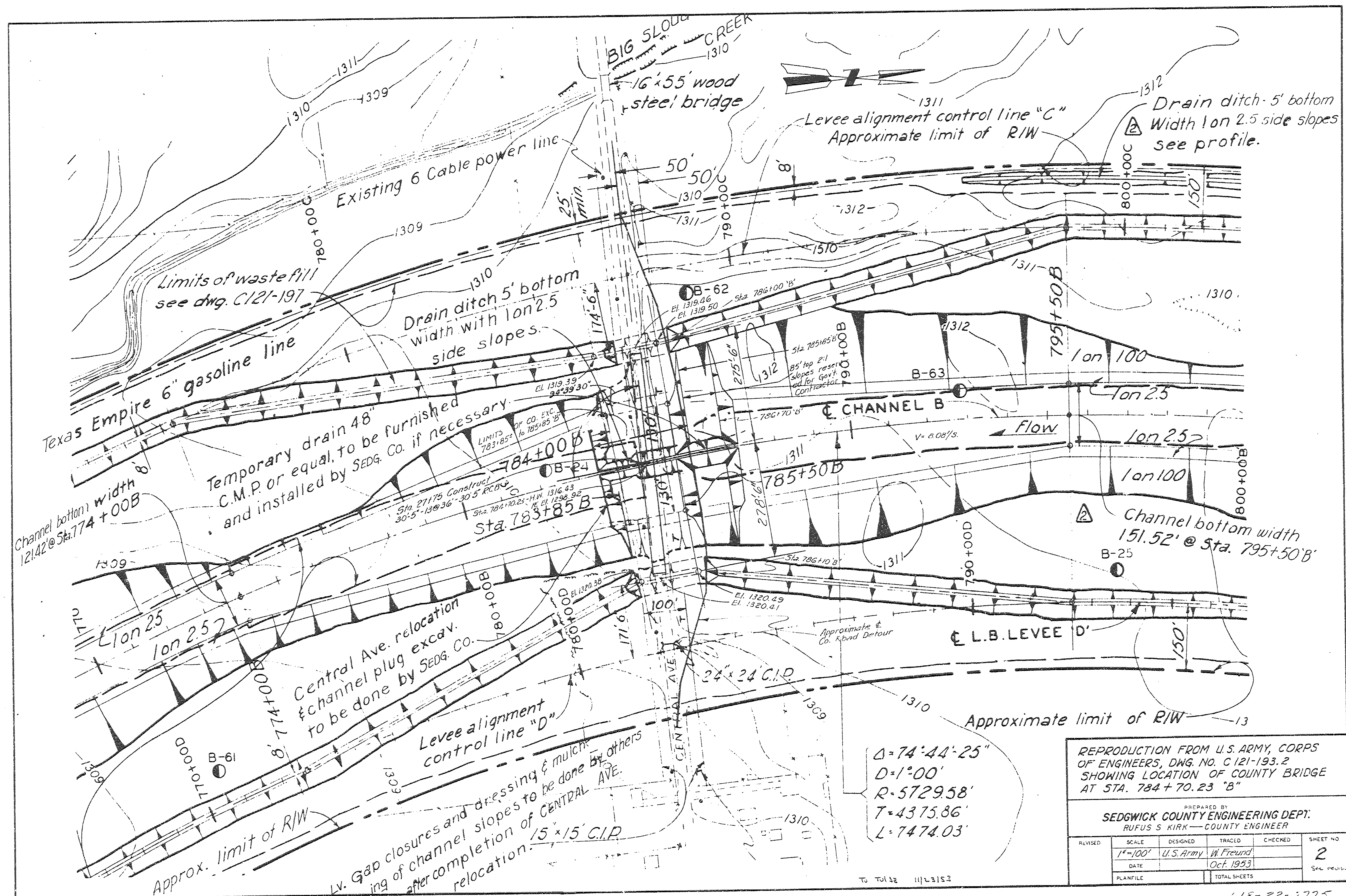
STATE HIGHWAY ENGINEER
STATE HIGHWAY COMMISSION OF KANSAS

RECOMMENDED FOR APPROVAL DATE

DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED DATE

DIVISION ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

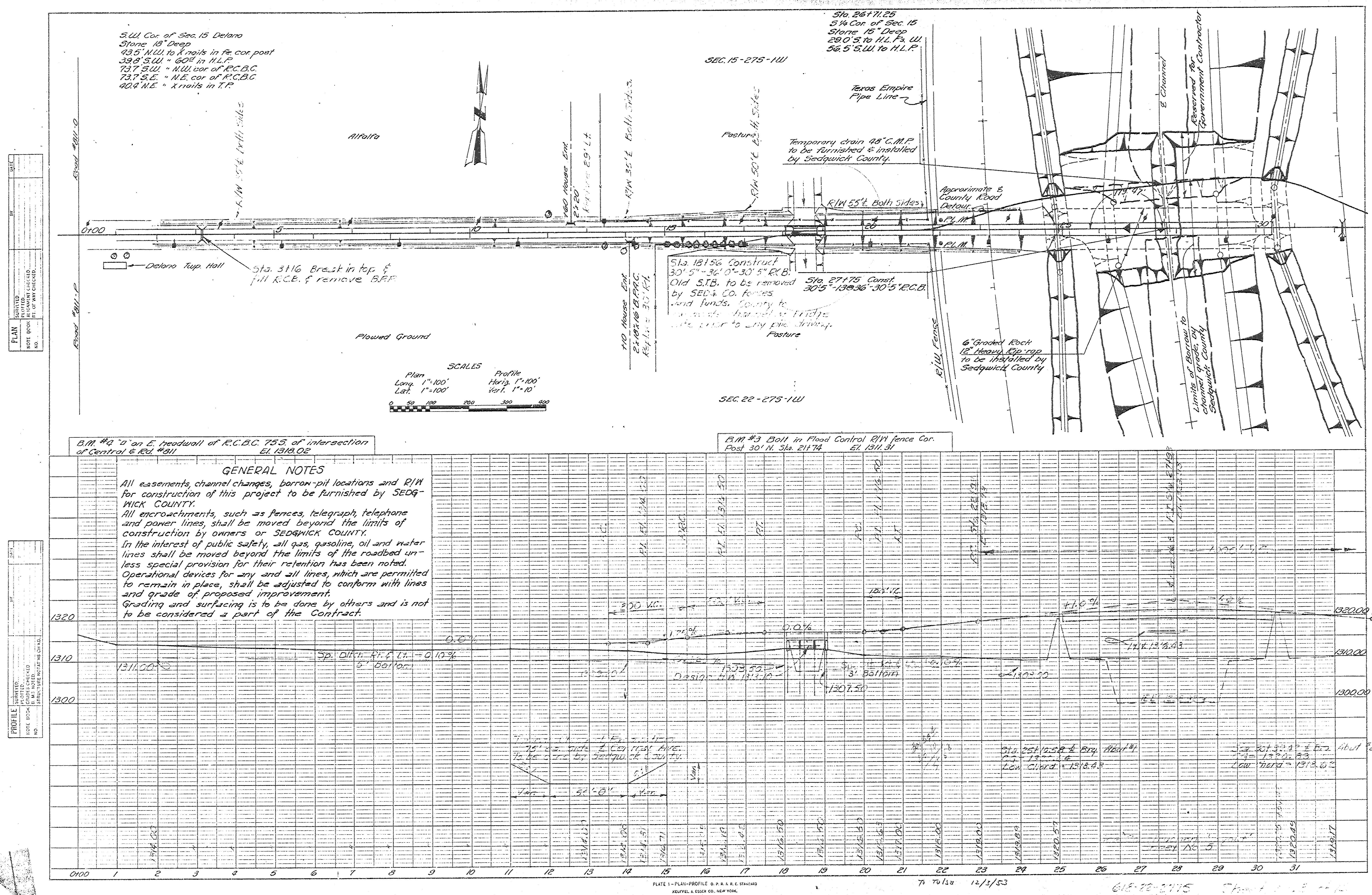


REPRODUCTION FROM U.S. ARMY, CORPS
OF ENGINEERS, DWG. NO. C 121-193.2
SHOWING LOCATION OF COUNTY BRIDGE
AT STA. 784 + 70.23 "B"

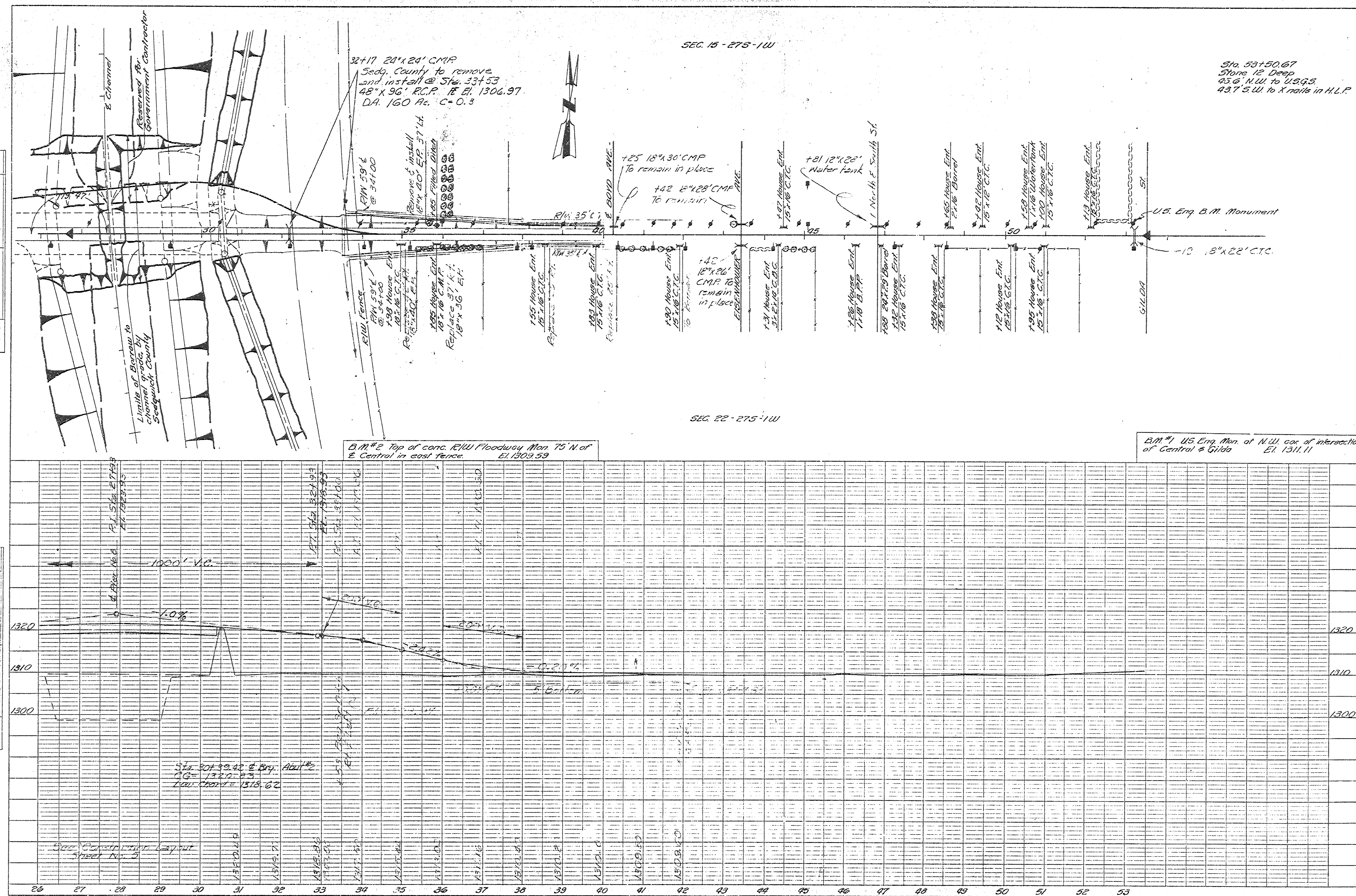
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
RUFUS S. KIRK—COUNTY ENGINEER

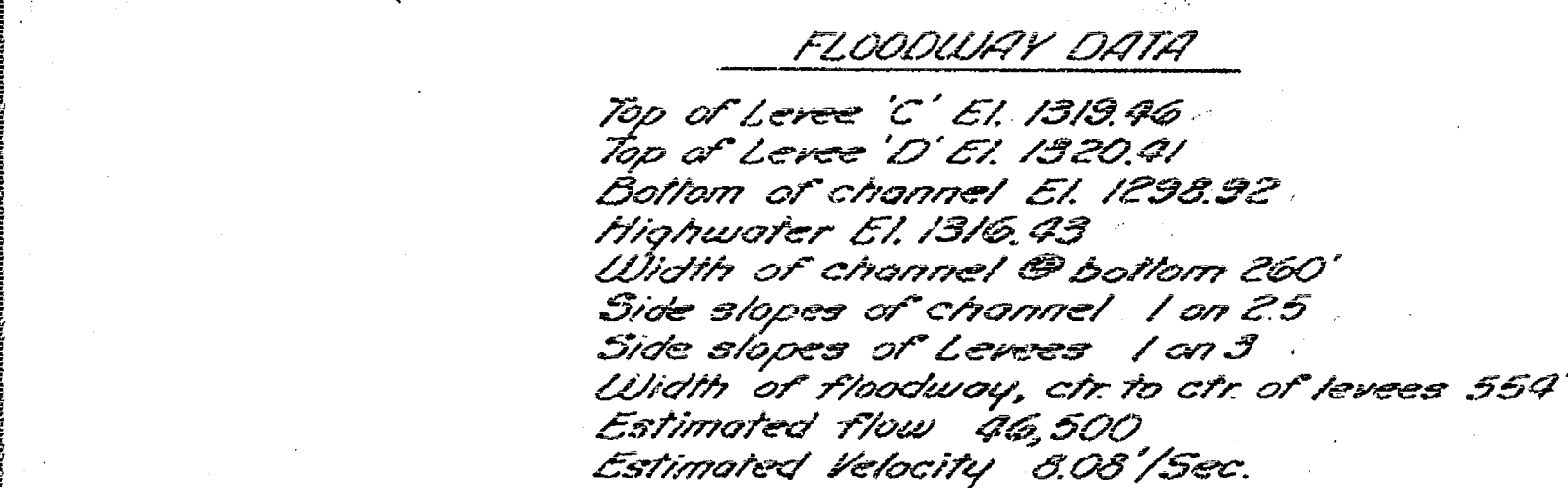
REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1"=100'	U.S. Army	W. Freund		2
	DATE	Oct. 1953			See ref.
	PLANFILE		TOTAL SHEETS		

1618-22-2775



PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
E. M. NOTED	GRIDES CHECKED		
NO.	STRUCTURE NOTAT NS CH KD		





Design: According to AASHO Specifications, Edition of 1969 H20-44 Loading; 16' x 20,000 psi; 1,100,000 psi.

Soundings: Taken by SEDGWICK COUNTY with 3/8" jet.

Filling: To be driven to a computed resistance of 40 tons per pile.

Concrete: Used Class (A) concrete thruout. Barrel all exposed edges with a 3/8" triangular mauling.

Forms: Contractor shall use preformed metal forms owned by SEDGWICK COUNTY.

Embankment: To be constructed by SEDGWICK COUNTY or others. All soil to be considered a part of this project except at pier locations in channelway.

Timber cribbing of centerline of each span on this project will be required.

One set of short forms and four sets of long forms are available for this project. Since the concrete in a full span ahead of any forms to be removed must have attained its design strength before removal of these forms, it is suggested that high early strength cement be used.

Forms for this project shall be picked up by Contractor at the SEDGWICK COUNTY YARDS, 1015 5th Avenue, Wichita, and returned to this location unless otherwise instructed by the Engineer. (See Special Provisions in Specifications for details of material and construction.)

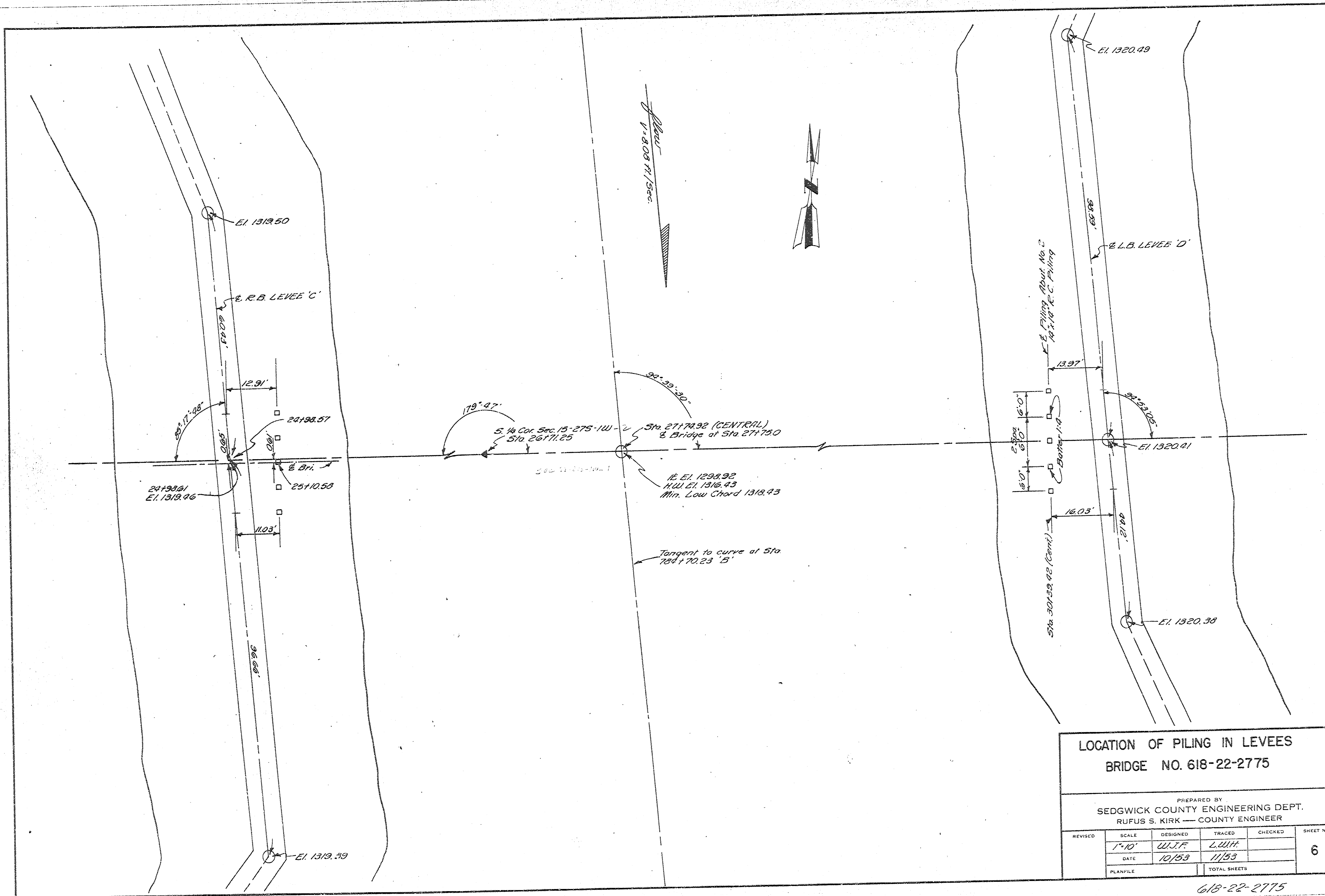
The wearing surface and all other exposed surfaces of wings, caps, abutments and piling shall be cured and protected in accordance with section 504.8 of the Standard Specifications for State Road & Bridge Construction, Edition of 1951. As an alternative, a paraffin base curing compound may be used. The surface of the concrete shall be covered with dry burlap, or any suitable material satisfactory to the Engineer in charge, for a minimum of 72 hours may be used.

Since the speed and simplicity of this project will be greatly increased if construction is well underway before the waterway and levees are constructed, work on forming of piling must start within two weeks and pile driving must start within three weeks after the Contract is let. A trench 3'-4'-6" to be excavated before setting piling. The trench will be 10' wide and 10' deep, spaced at each river location in channelway. Excavation and back filling not to be paid for directly, but shall be included in the unit price bid for concrete piling.

CONSTRUCTION LAYOUT
BRIDGE NO. 618-22-2775

PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
RUFUS S. KIRK — COUNTY ENGINEER

REVISED				SHEET NO.	
SCALE	DESIGNED	TRACED	CHECKED		
1"=20'	W.J.F.	L.W.H.			
DATE	11/53	11/53		5	
PLANTILE		TOTAL SHEETS			



LOCATION OF PILING IN LEVEES
 BRIDGE NO. 618-22-2775

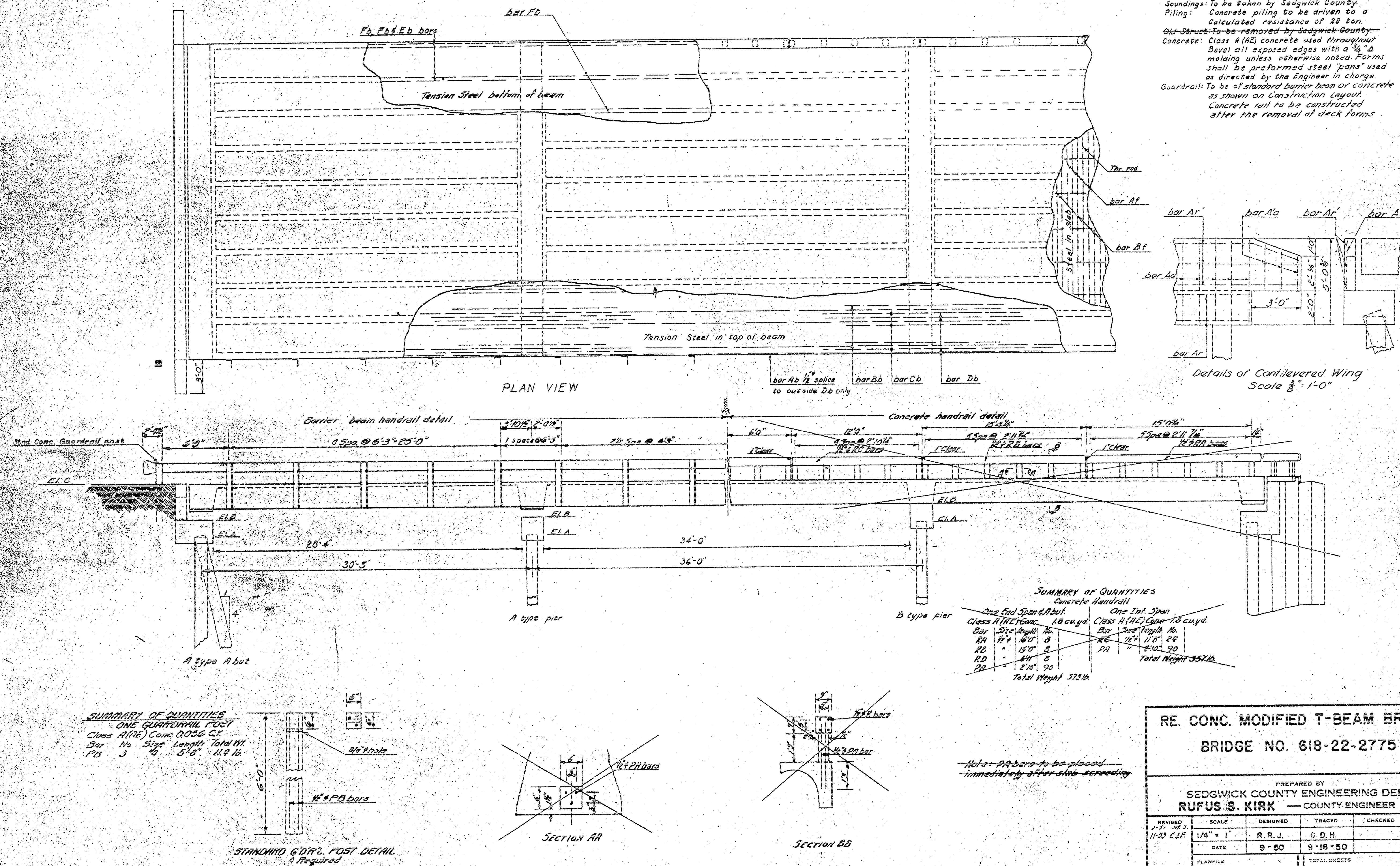
PREPARED BY
 SEDGWICK COUNTY ENGINEERING DEPT.
 RUFUS S. KIRK — COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1"=10'	W.J.F.	L.W.H.		6
	DATE	10/53	11/53		
	PLANFILE		TOTAL SHEETS		

618-22-2775

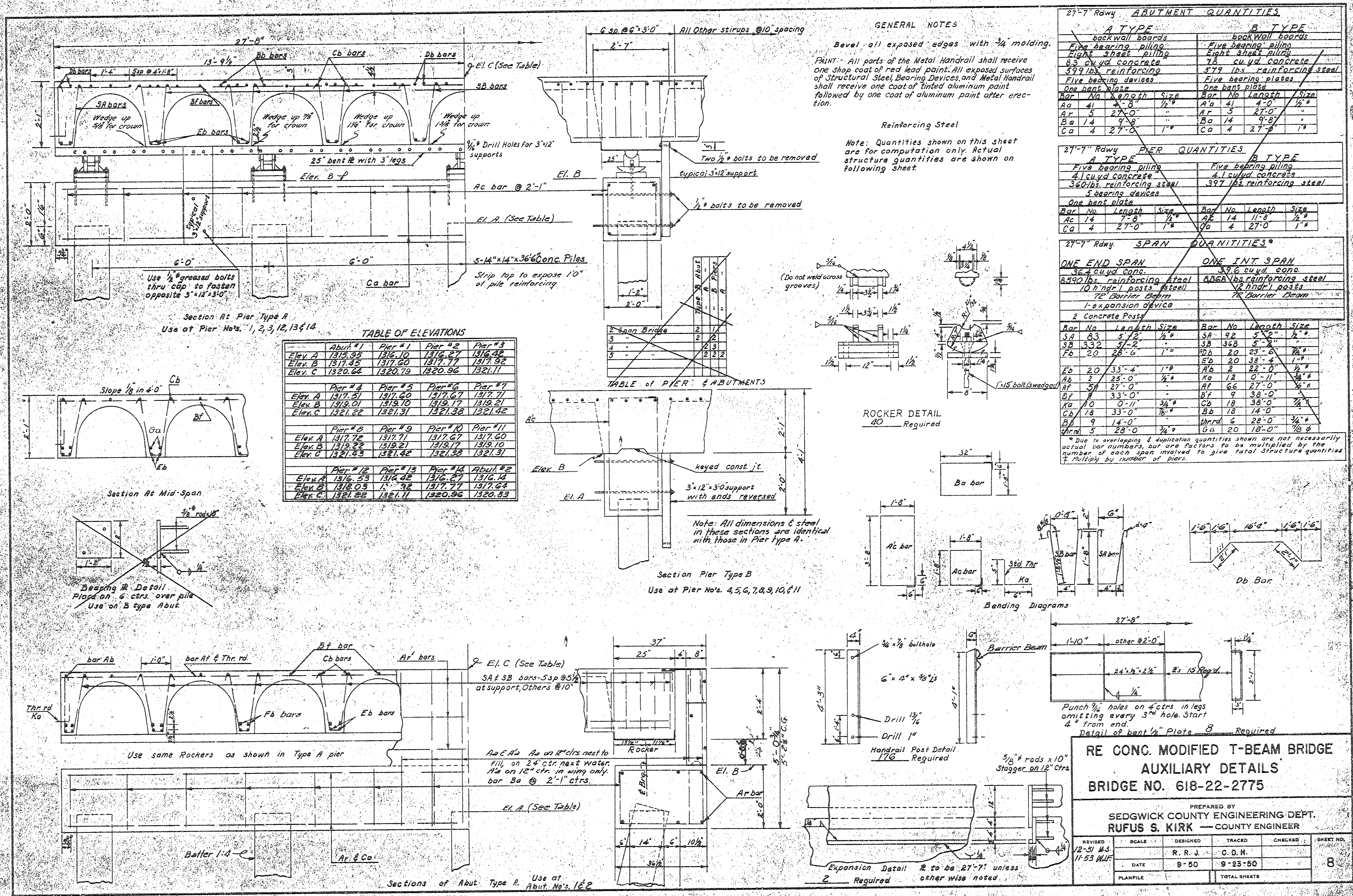
GENERAL NOTES

Design: Designed for H-20-44 loading, AASHTO specifications, $f'_c = 20,000$ psi, $f_y = 100,000$ psi.
 Soundings: To be taken by Sedgwick County.
 Piling: Concrete piling to be driven to a calculated resistance of 28 ton.
 Old Structure: To be removed by Sedgwick County.
 Concrete: Class A (AE) concrete used throughout.
 Bevel all exposed edges with a $\frac{3}{4}$ " Δ molding unless otherwise noted. Forms shall be preformed steel pans used as directed by the Engineer in charge.
 Guardrail: To be of standard barrier beam or concrete as shown on Construction layout. Concrete rail to be constructed after the removal of deck forms.

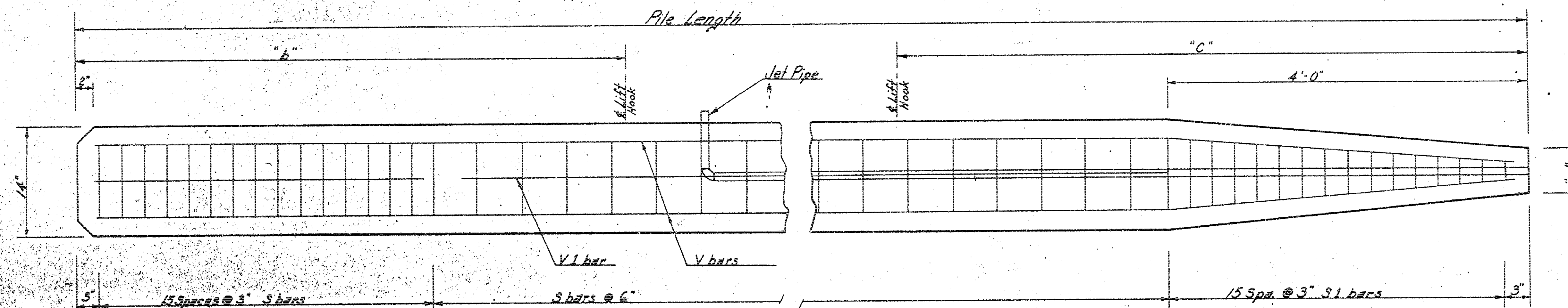


RE. CONC. MODIFIED T-BEAM BRIDGE BRIDGE NO. 618-22-2775

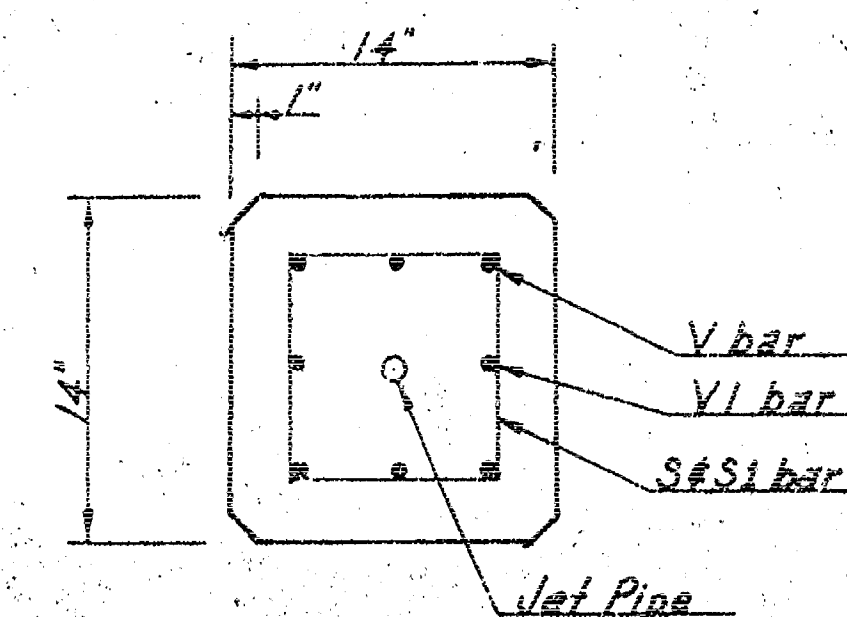
PREPARED BY SEDGWICK COUNTY ENGINEERING DEPT. RUFUS S. KIRK — COUNTY ENGINEER				SHEET NO. 7
REVISED 1-15-53 C.L.F.	SCALE 1/4" = 1'	DESIGNED R.R.J.	CHECKED C.D.H.	
DATE 9-50				
PLANFILE			TOTAL SHEETS	



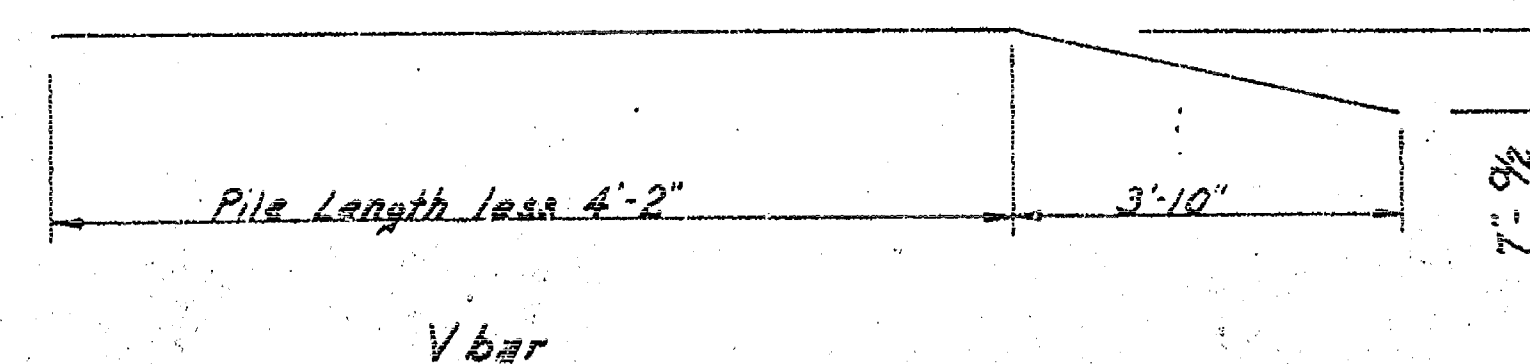
Pub. Rd. Dist. No.	State	Project No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas		1951		



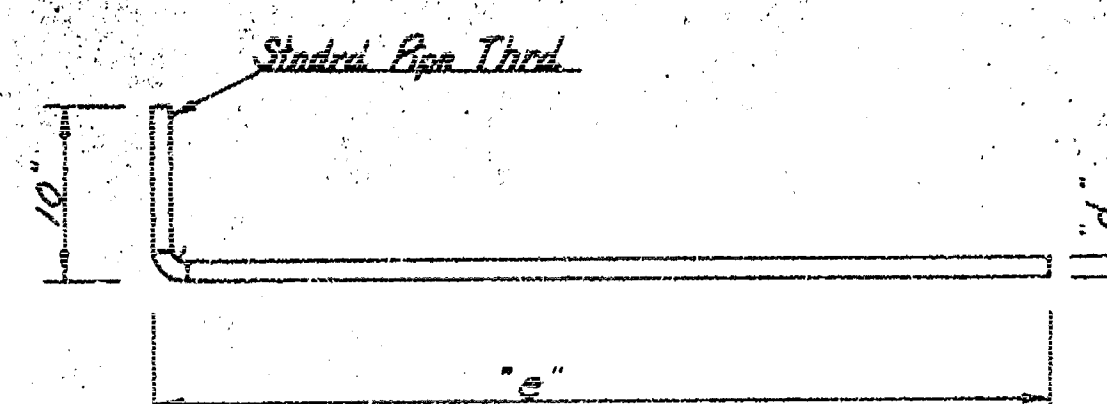
ELEVATION.



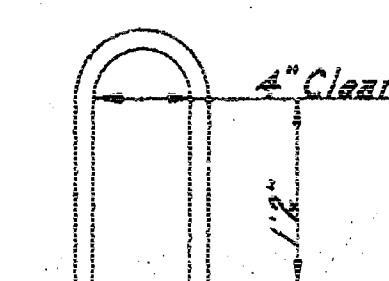
END VIEW



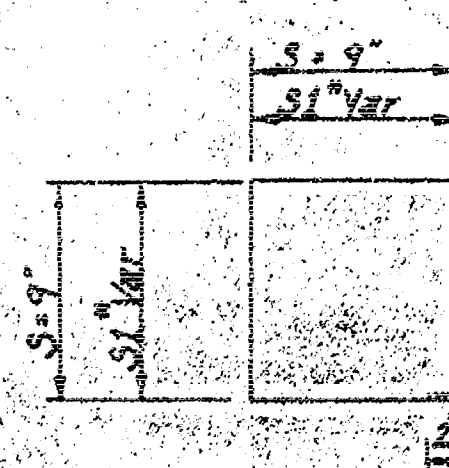
V bar



10" Dia. Jet Pipe



#8 Lift Hook



S#S1 bar

*S1- 15 bars; increase from "x" to "y" by "z" increments

General Notes
Design: According to ARSMD Specifications, 1949 Edition. $f_c = 12,000 \text{ psi}$ to $1,000 \text{ psi}$.
Concrete: Use class A throughout if piling are to be encased or otherwise protected. Use class B (B.E.) if piling are to form open bent, unless otherwise noted.
Reinforcing: All dimensions are to center of bars unless otherwise noted.
Jet Pipe: Standard pipe of dimensions shown unless otherwise approved by Engineer.
Curing: Piling shall be left in forms or otherwise properly cured for at least 7 days. Piling shall not be moved until concrete has attained its design strength or a minimum of 4 weeks after casting.
Payment: The cost of material and labor used for casting and driving of piles shall be included in the unit bid for concrete piles.
Handling: Piling shall only be lifted by handling hooks or by rigging within 18" of hook location.

Note: Concrete at end of piles shall be removed to expose reinforcing as stated elsewhere on plans. The length for payment of piles shall be as stated in sect 59.40 of the Standard Specifications of Kansas, 1951 Edition

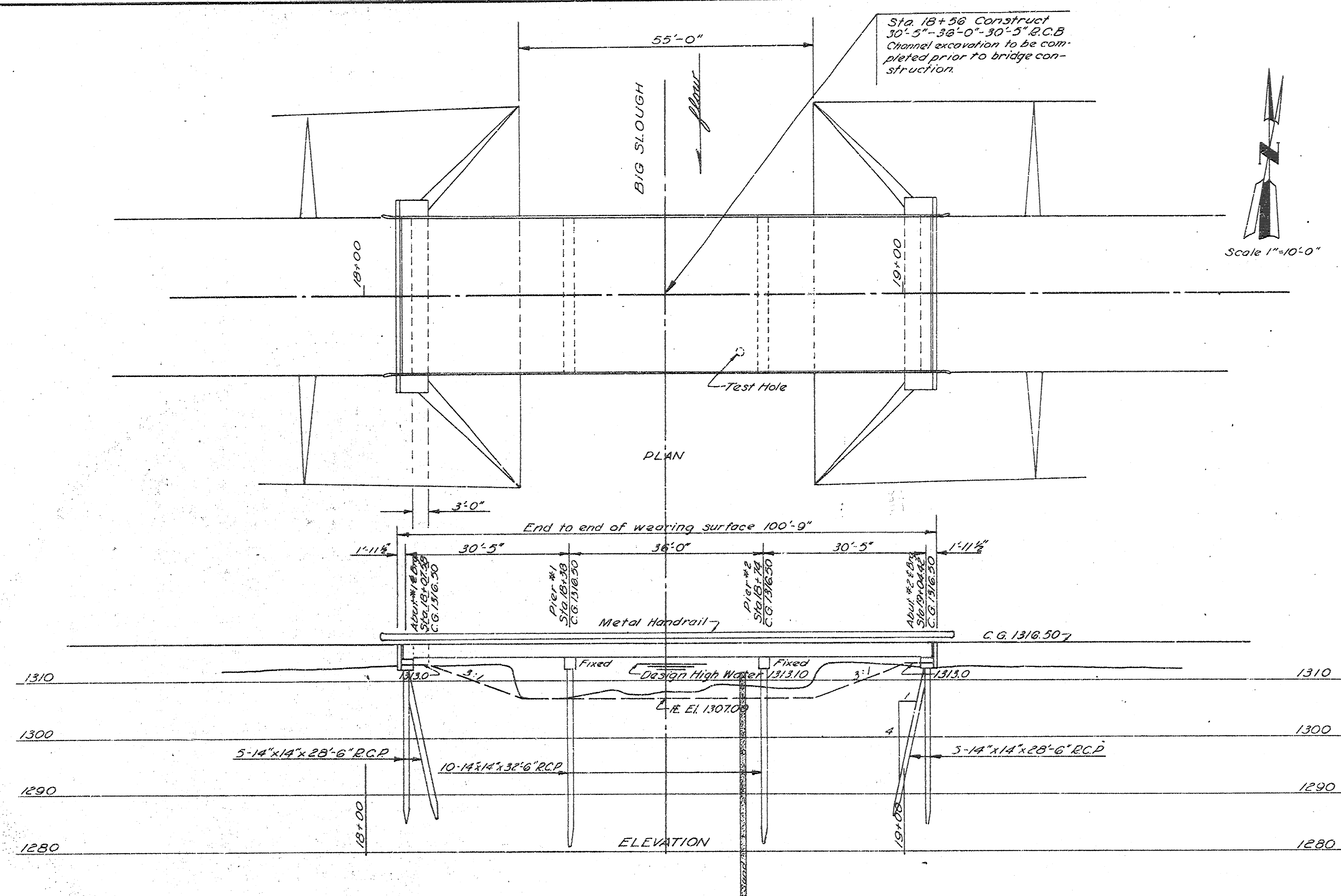
Pile Length	20'-6"	24'-6"	28'-6"	32'-6"	36'-6"	40'-6"
Bar	Size	Length	No.	Size	Length	No.
V	#7	20'-6"	4	#7	24'-6"	4
V1	#2	3'-4"	41	#2	3'-4"	49
S	#2	3'-4"	74	#2	3'-4"	100
S1	#2	3'-4"	15	#2	3'-4"	15
Lift Hook	#8	3'-0"	2	#8	3'-0"	2
Jet Pipe						
"a"	6"	6"	6"	6"	6"	6"
"b"	6'-0"	7'-2"	8'-4"	9'-6"	10'-8"	11'-10"
"c"	8'-0"	9'-2"	10'-4"	11'-6"	12'-8"	13'-10"
"d"						
"e"						
"f"						
"g"						
"h"						
"i"						
"j"						
Concrete	9.4 Cu. Yds.	1.14 Cu. Yds.	1.34 Cu. Yds.	1.55 Cu. Yds.	1.75 Cu. Yds.	1.95 Cu. Yds.
Rebar	20.9 Lbs.	24.7 Lbs.	28.4 Lbs.	32.1 Lbs.	35.8 Lbs.	39.5 Lbs.

				40 req'd				
Pile Length	37'-0"	Size	Length	No.	50'-0"	Size	Length	No.
Bar	Size	Length <td>No.</td> <td></td> <td>Size</td> <td>Length<td>No.</td><td></td></td>	No.		Size	Length <td>No.</td> <td></td>	No.	
V	#6	36'-8"	4		#7	45'-8"	4	
V1	#6	33'-0"	4		#8	45'-8"	4	
S	#2	3'-4"	74		#2	5'-4"	100	
S1	#2	*Var	15		#2	*Var	15	
Lift Hook	#8	3'-0"	2		#8	3'-0"	2	
Jet Pipe	2"		1					
"a"	10"				6"			
"b"	10'-10"				14'-0"			
"c"	11'-10"				16'-0"			
"d"	11'-10"				17'-0"			
"e"	11'-10"				18'-0"			
"f"	11'-10"				19'-0"			
"g"	11'-10"				20'-0"			
"h"	11'-10"				21'-0"			
"i"	11'-10"				22'-0"			
"j"	11'-10"				23'-0"			
Concrete	1.82 Cu. Yds.				2.43 Cu. Yds.			
Rebar	482 Lbs.				956 Lbs.			

14"x14" Re. Conc. Piling
BRIDGE NO. 618-22-2775

PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
RUFUS S. KIRK — COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
		Schwab	Housman		10
		DATE	12-51	1-52	
		PLANFILE		TOTAL SHEETS	



GENERAL NOTES

Design: According to AASHTO Specifications, Edition of 1949, 1120-44. Loading: 15,000 psi, 16,000 psi.
Soundings Taken by Sedgwick County with 1/4" jet.
Piling: Concrete Piling to be driven to a computed resistance of 25 tons per pile.
Concrete: Use Class AA concrete thruout. Bevel all exposed edges with a 1/4" triangular moulding.
Forms: Contractor shall use preformed metal forms owned by SEDGWICK COUNTY.
Embankment: To be constructed by SEDGWICK COUNTY or others. No earthwork is to be considered a part of this project except at pier and abutment locations-the cost of which is to be included in the unit price bid for piling.

GENERAL CONSTRUCTION NOTES

Timber cribbing at the centerline of each span on this project will be required.
Two sets of short forms and four sets of long forms are available for these projects. Since the concrete in full span ahead of any forms to be removed must have attained its design strength before removal of these forms it is suggested that high-early strength concrete be used.
Forms for this project shall be picked up by the contractor at the SEDGWICK COUNTY YARDS, R15 Stillwell, Wichita, and returned to this location unless otherwise instructed by the Engineer. (See Special Provisions in Specifications and Proposals Booklet.)
The wearing surface and all other exposed surfaces of wings, caps, abutments, and piling shall be cured and protected in accordance with Sec. 504B of the Standard Specifications for State Road & Bridge Construction, Edition of 1949. As an alternate, a paraffin base curing compound applied immediately after finishing of concrete, and covered with dry burlap, or any suitable material satisfactory to the Engineer in charge, for a minimum of 72 hours may be used.

D.A. = 30 square miles C-025
Waterway provided #14 sq ft

CONSTRUCTION LAYOUT BRIDGE NO. 618-22-1856

PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
RUFUS S. KIRK — COUNTY ENGINEER

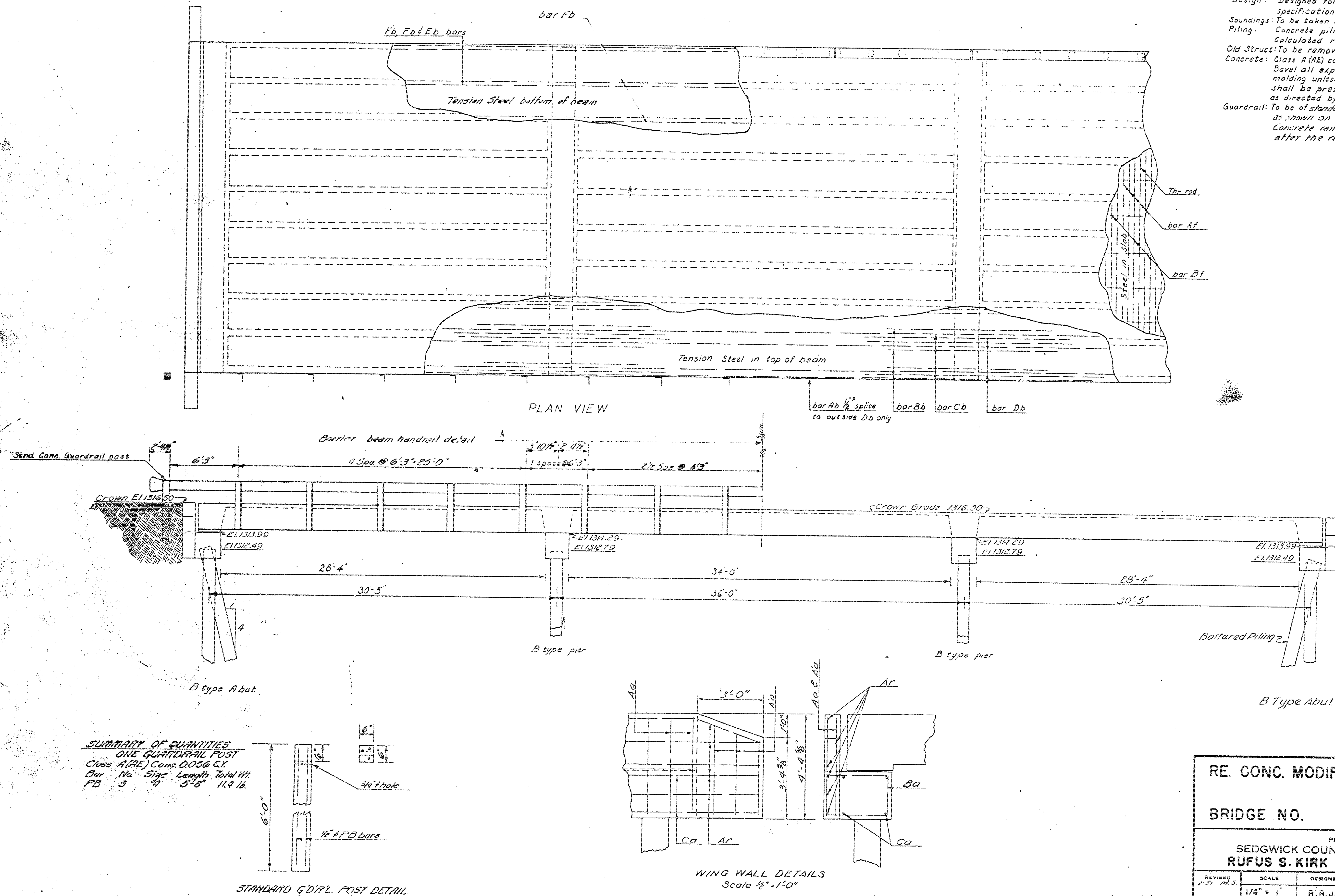
REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
	1"=10'	W.J.F.	C.J.F.		11
	DATE	11-53	11-53		
	PLANFILE		TOTAL SHEETS		

70 TV 132 12/4/52

618-22-1856 Sh. #11 of 14

GENERAL NOTES

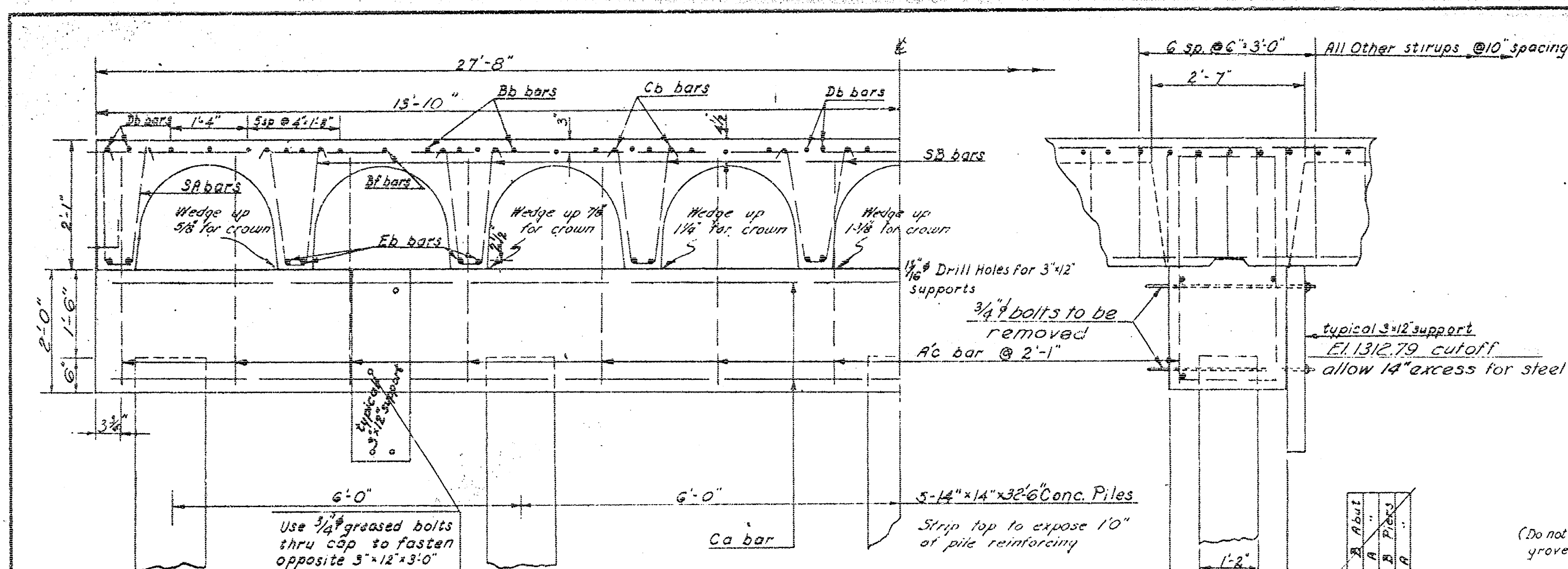
Design: Designed for H-20-44 loading ARSHO
 Specifications: $f'_c = 20,000 \text{ psi}$; $f_y = 40,000 \text{ psi}$
 Soundings: To be taken by Sedgwick County.
 Piling: Concrete piling to be driven to a
 Calculated resistance of 28 ton.
 Old Struct: To be removed by Sedgwick County.
 Concrete: Class A (RE) concrete used throughout.
 Bevel all exposed edges with a $\frac{1}{4}" \Delta$
 molding unless otherwise noted. Forms
 shall be preformed steel "pans" used
 as directed by the Engineer in charge.
 Guardrail: To be of standard barrier beam or concrete
 as shown on Construction Layout.
 Concrete rail to be constructed
 after the removal of deck forms.



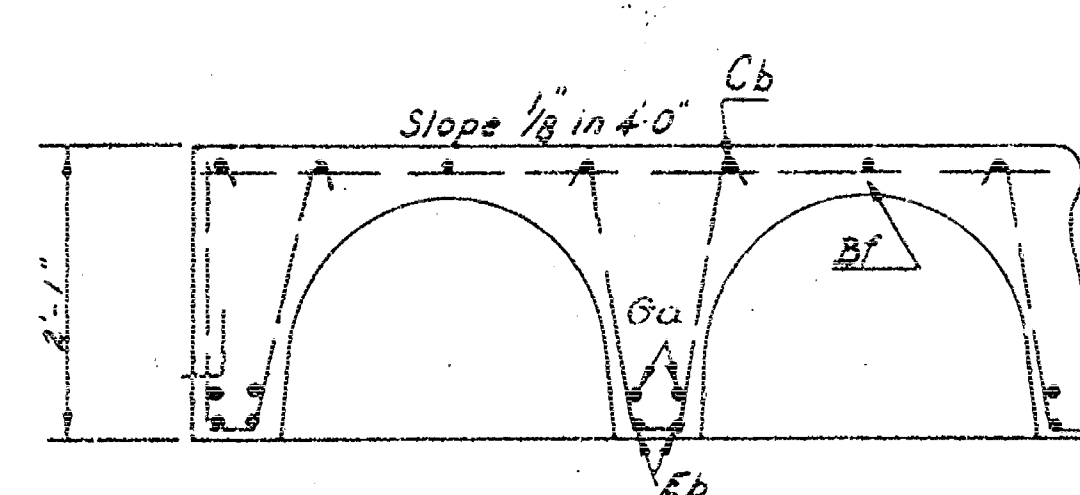
RE. CONC. MODIFIED T-BEAM BRIDGE				
BRIDGE NO.		618-22-1856		
PREPARED BY SEDGWICK COUNTY ENGINEERING DEPT. RUFUS S. KIRK — COUNTY ENGINEER				
REVISED 1-25-50	SCALE $\frac{1}{4}" = 1'$	DESIGNED R. R. J.	TRACED C. D. H.	CHECKED
DATE 9-50		TOTAL SHEETS		SHEET NO. 12

To Tulsa 12/4/53

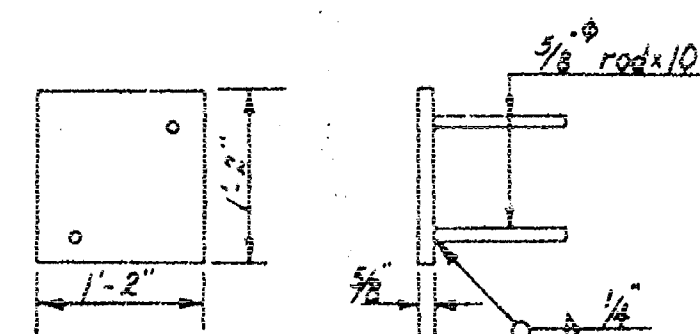
618-22-1856 Sh. #12 of 14



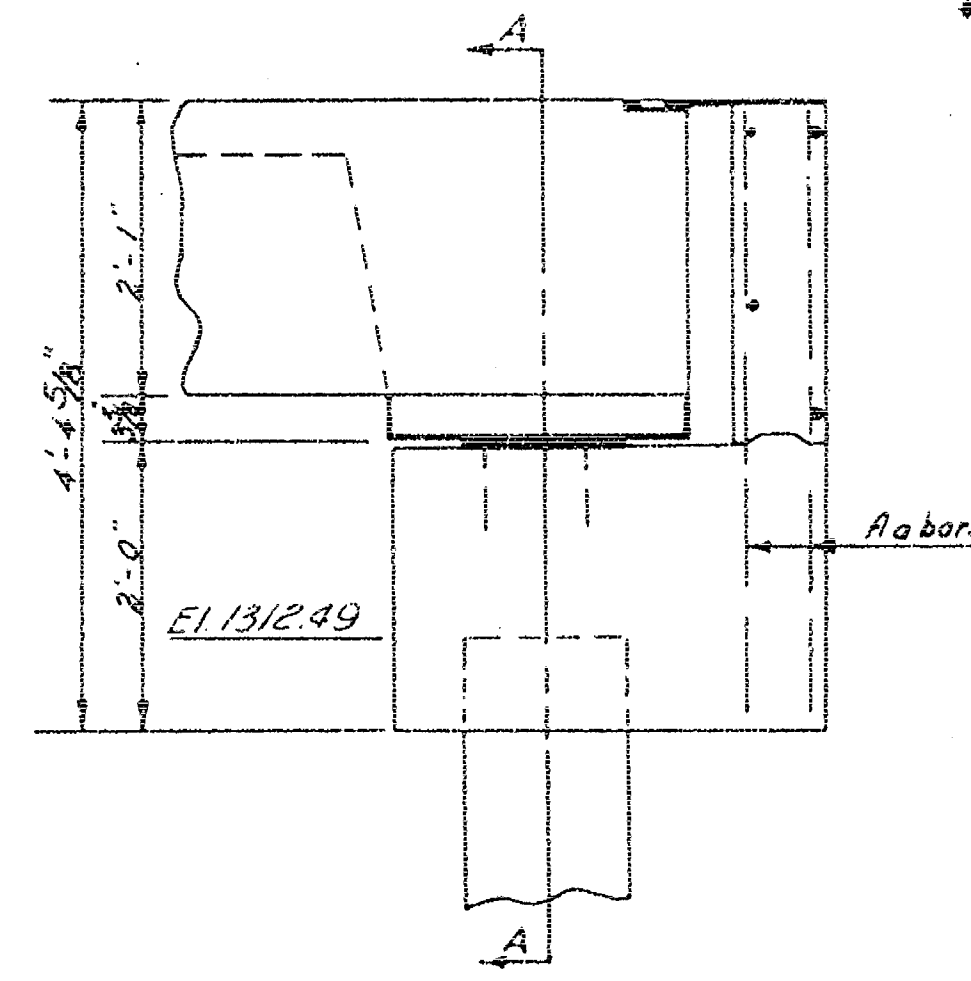
Section At Pier Type B
Use at Pier No's. 1 & 2



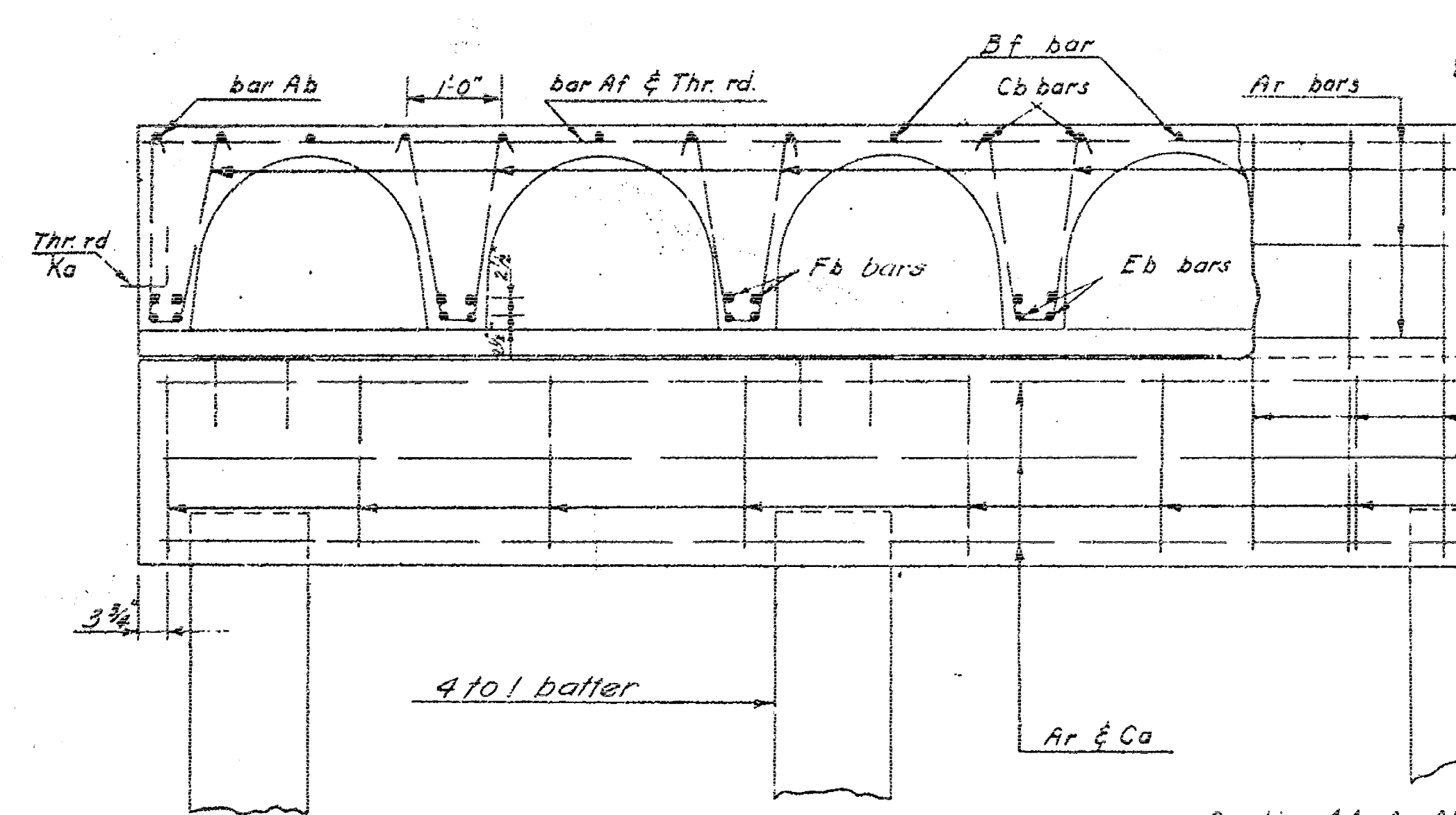
Section At Mid-Span



Bearing R Detail
Place on 6" ctrs. over pile
Use on B Type Abut.
10 Required



Section At Abut. Type B
Use at Abut. No's. 1 & 2



Section AA of Abut. Type B Use at Abut. No's. 1 & 2

TABLE OF ELEVATIONS

EI A	*
EI B	*
EI C	*
Length of piling	*

*See Construction Layout

TABLE OF PIERS & ABUTMENTS

Type	No.	Span	Abut.
2 Span Bridge	2	2	2
3 Span Bridge	3	3	3
4 Span Bridge	4	4	4

Note: All dimensions & steel in these sections are identical with those in pier type B & abut. type B except those shown.

Section Pier Type B
Use at Pier No's. 1 & 2

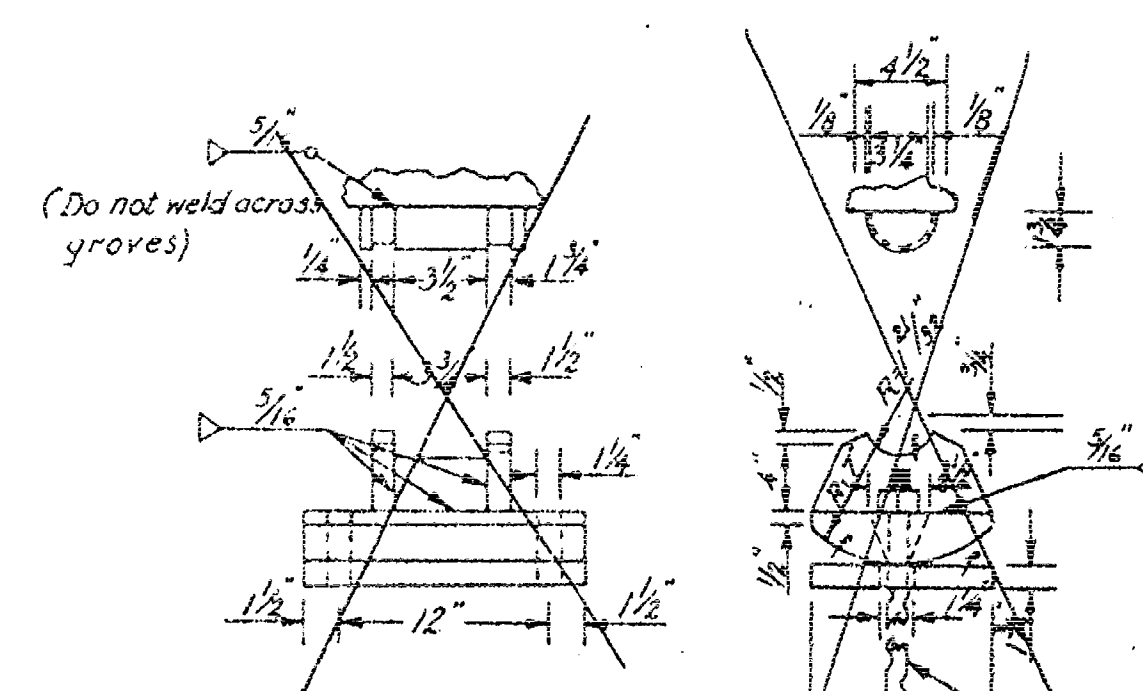
GENERAL NOTES

Bevel all exposed edges with 3/4" molding.

PAINT: All parts of the Metal Handrail shall receive one shop coat of red lead paint. All exposed surfaces of Structural Steel, Bearing Devices and Metal Handrail shall receive one coat of United aluminum paint followed by one coat of aluminum paint after erection.

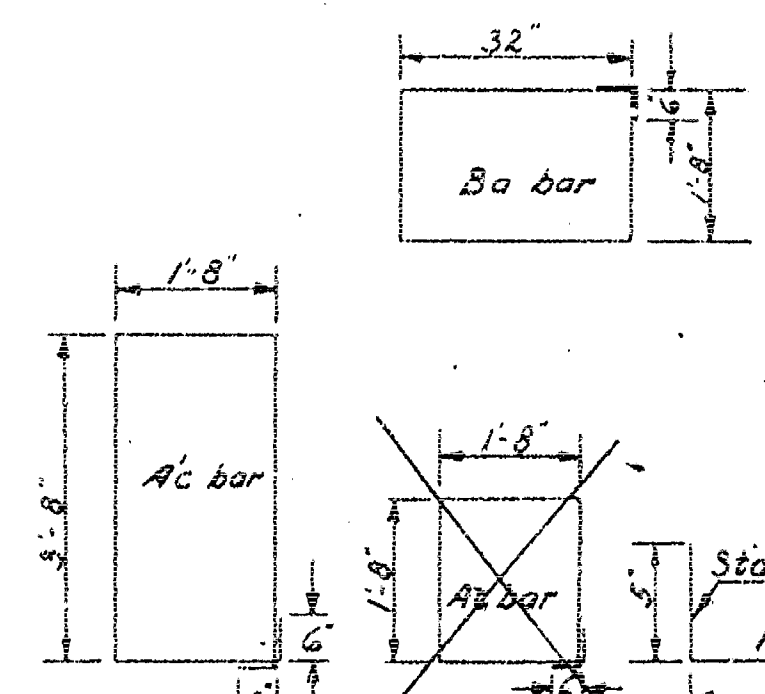
Reinforcing Steel

Note: Quantities shown on this sheet are for computation only. Actual structure quantities are shown on following sheet.

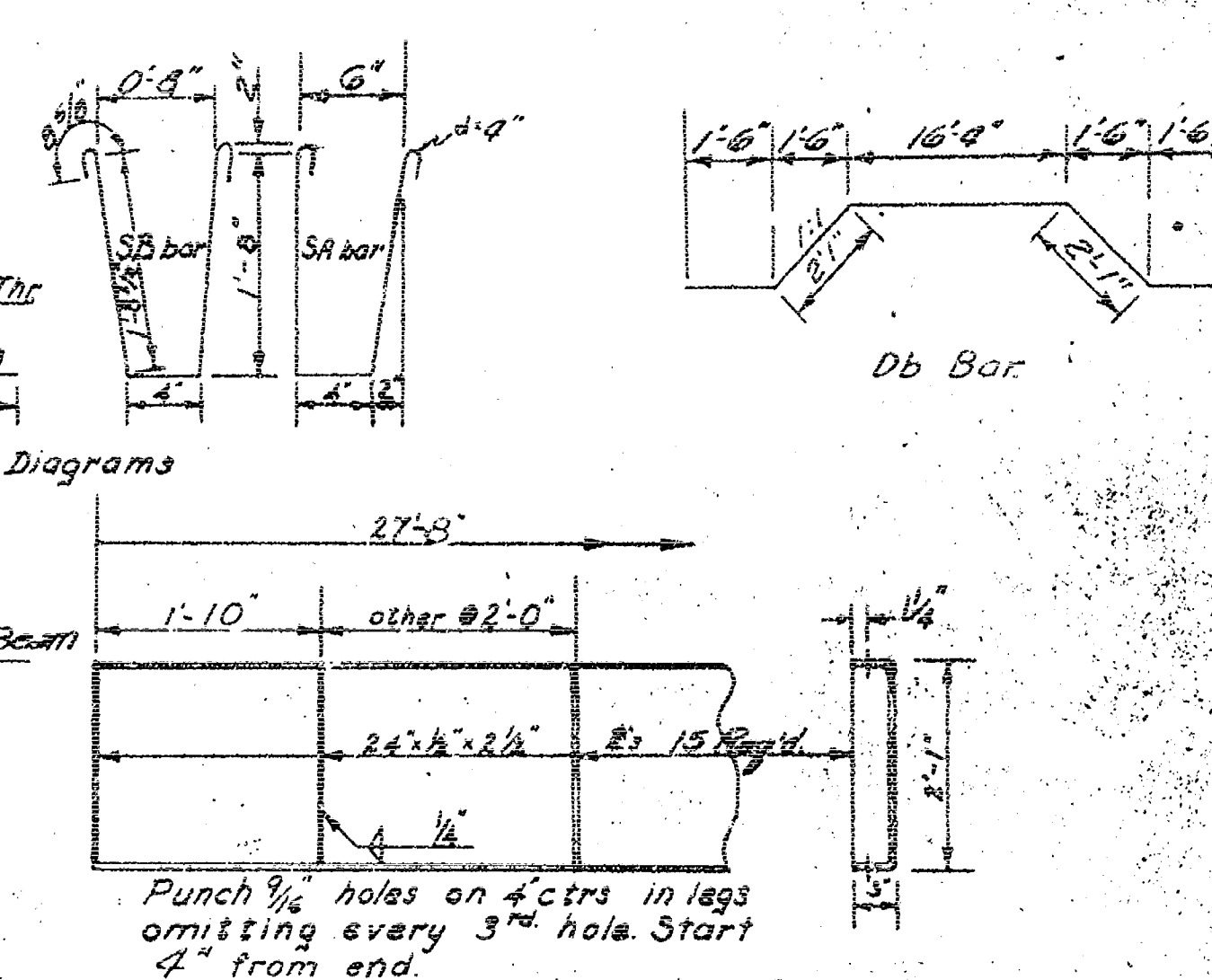


ROCKER DETAIL

NONE Required



Bending Diagrams



RE CONC. MODIFIED T-BEAM BRIDGE AUXILIARY DETAILS BRIDGE NO. 618-22-1856

PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
RUFUS S. KIRK COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
12-51 M.S.		R. R. J.	C. D. H.		13
DATE	9-50	9-23-50			
PLANFILE		TOTAL SHEETS			

618-22-1856 Sh. # 13 of 14

