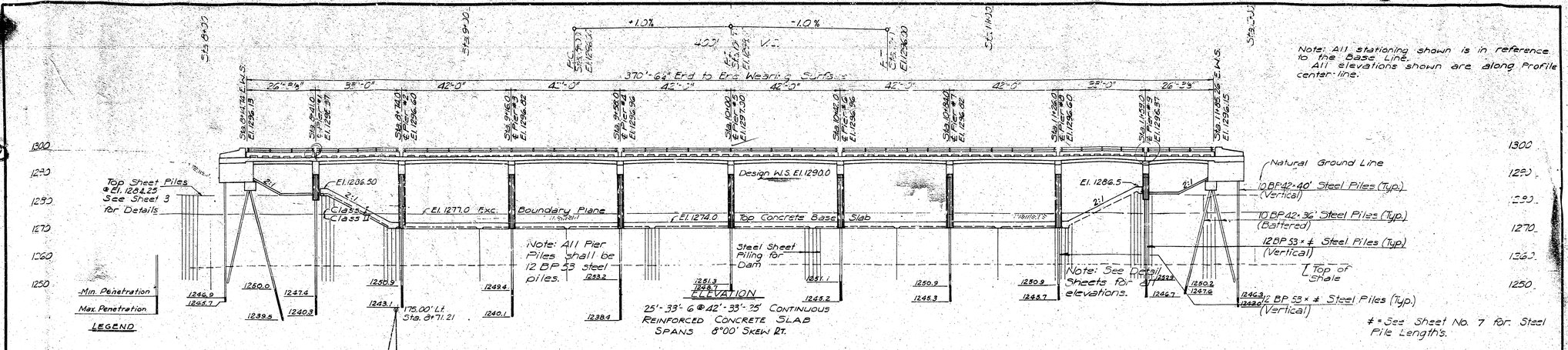
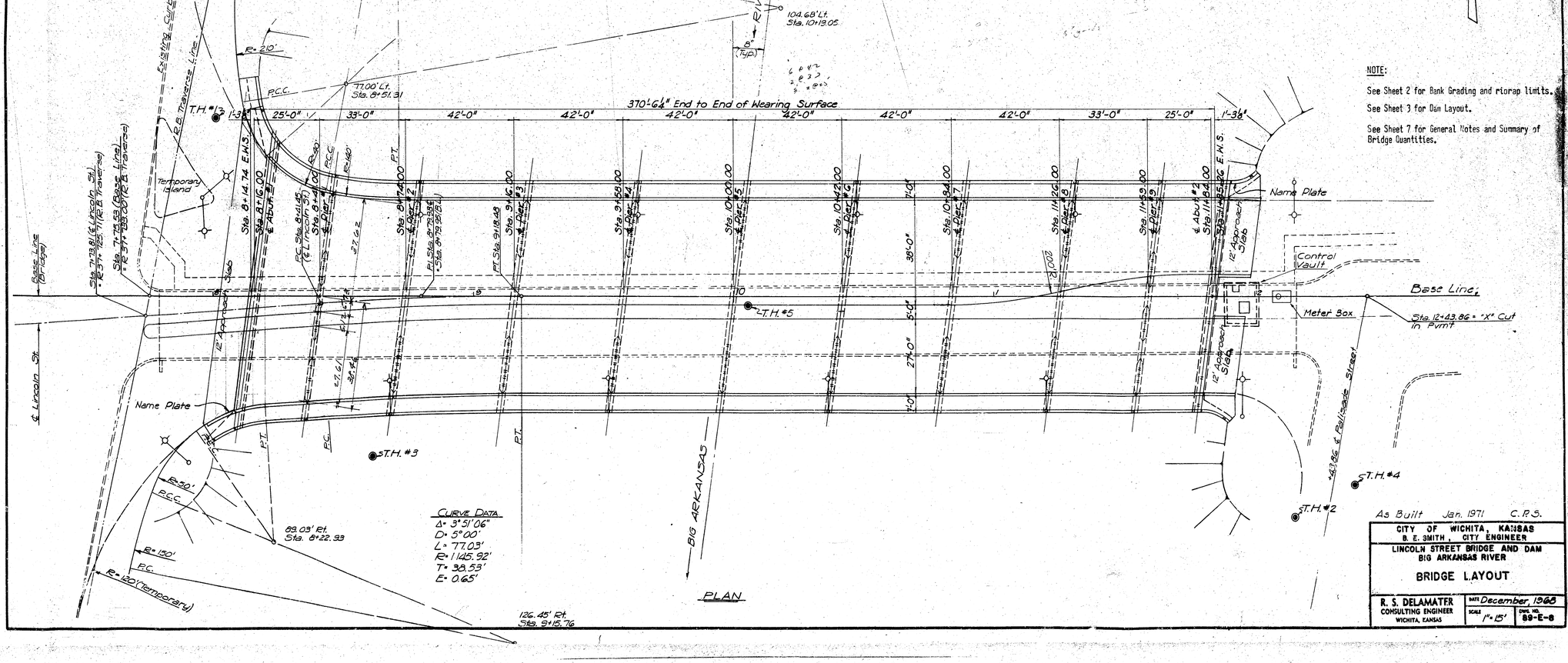
Note: All stationing shown is in reference to the Base Line. All elevations shown are along Profile center-line.



≠ = See Sheet No. 7 for Steel Pile Length's.

SCALE 1"=15'



PLAN

NOTE:

See Sheet 2 for Bank Grading and riprap limits.

See Sheet 3 for Dam Layout.

See Sheet 7 for General Notes and Summary of Bridge Quantities.

As Built Jan. 1971 C.R.S.

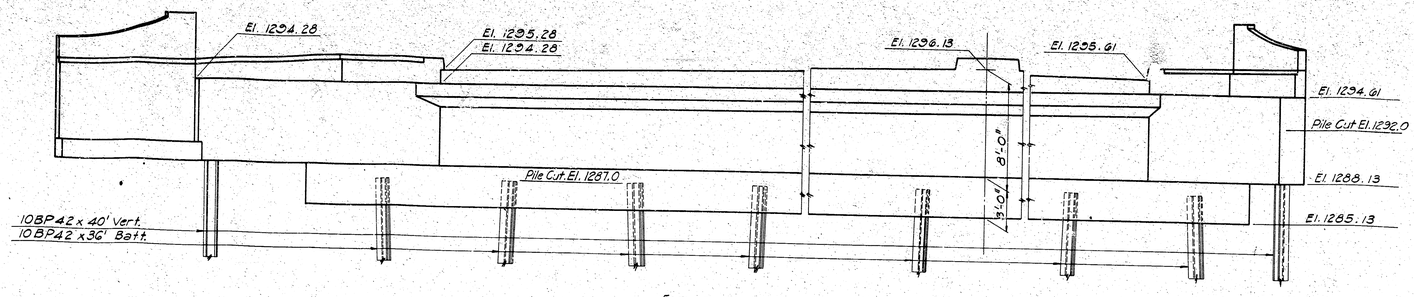
CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

BRIDGE LAYOUT

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

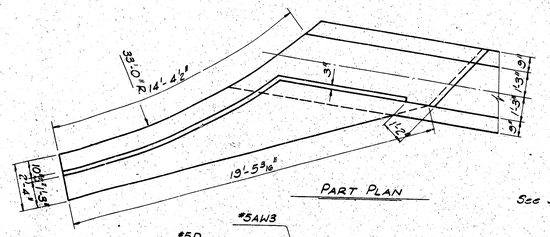
DATE December, 1968
SCALE 1"=15'
DWG. NO. 89-E-8



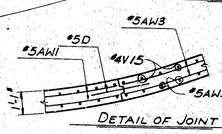
ELEVATION

Backwall reinforcing identical to Abutment No. 2 except for number of bars.

Top steel in slab is same pattern as Abut. No. 2 except fanned from the left edge similarly to bottom steel.



PART PLAN



DETAIL OF JOINT

PLAN

SECTION A-A

FOOTING PLAN SHOWING PILE SPACING

PART PLAN

Reinforcing and details of left wing are similar to wings on Abutment 2, except omit Bars AV2 & 3 and replace AV4 & 5 with 15 sets of AV14 & AV15 incremented widths as scaled from this plan.

Reinforcing and details of right wing are similar to wings on Abutment 2, except omit Bars AV2 & 3 and replace AV4 & 5 with 11 sets of AV24 & AV25 incremented widths as scaled from this plan.

NOTE:

Refer to Sheet 10, Abutment No. 2. Longitudinal Section, Wing Section and other details are identical to those on Abutment No. 2 except as otherwise noted or dimensioned.

See Sheet 17 for details of wing rail.

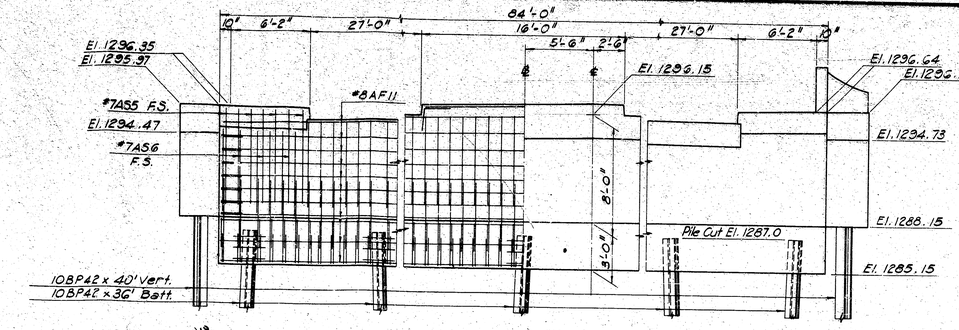
All concrete shall be Class AAA.

CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER
LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

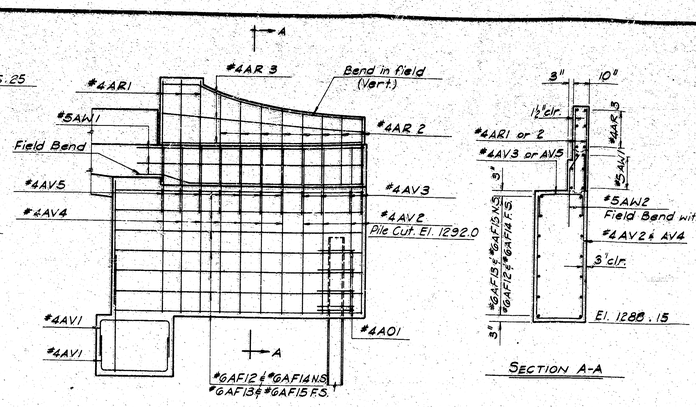
DETAILS, ABUTMENT 1

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE December 1968
SCALE _____
DWG. NO. 69-E-9

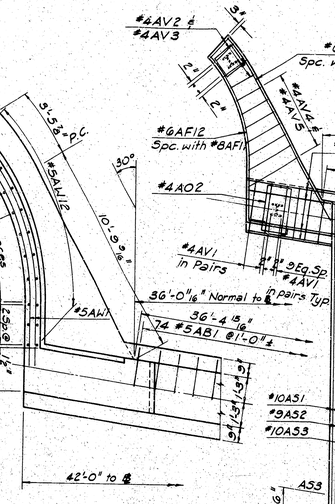


ELEVATION

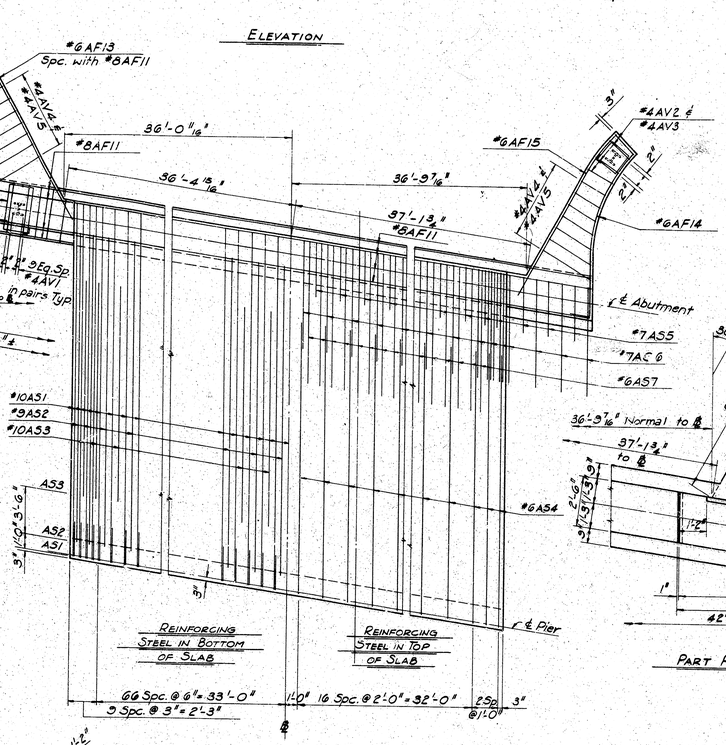


DEVELOPED VIEW OF WINGWALL

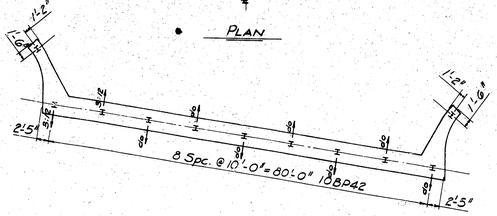
SECTION A-A



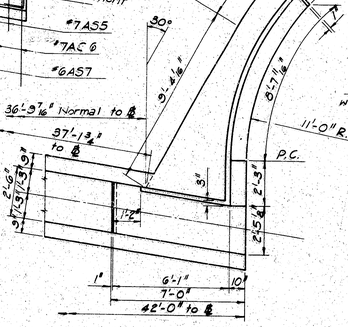
SECTION THRU WINGWALL



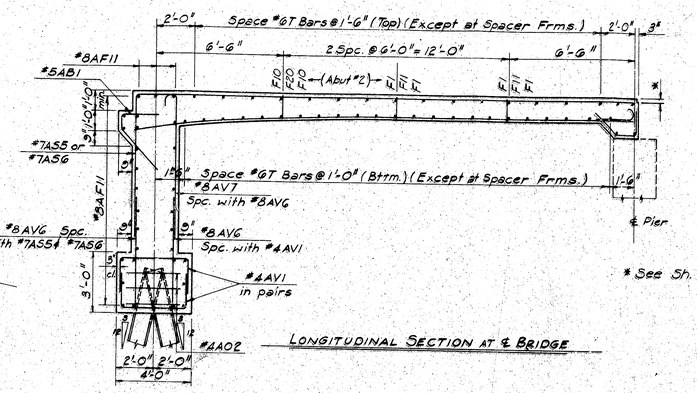
PLAN



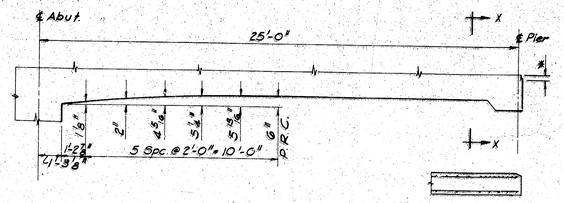
FOOTING PLAN SHOWING PILE SPACING



PART PLAN

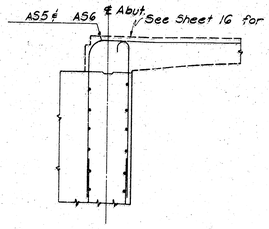


LONGITUDINAL SECTION AT ℄ BRIDGE



HAUNCH ORDINATES

PART SECTION X-X



PART SECTION THRU BACKWALL AT SIDEWALK

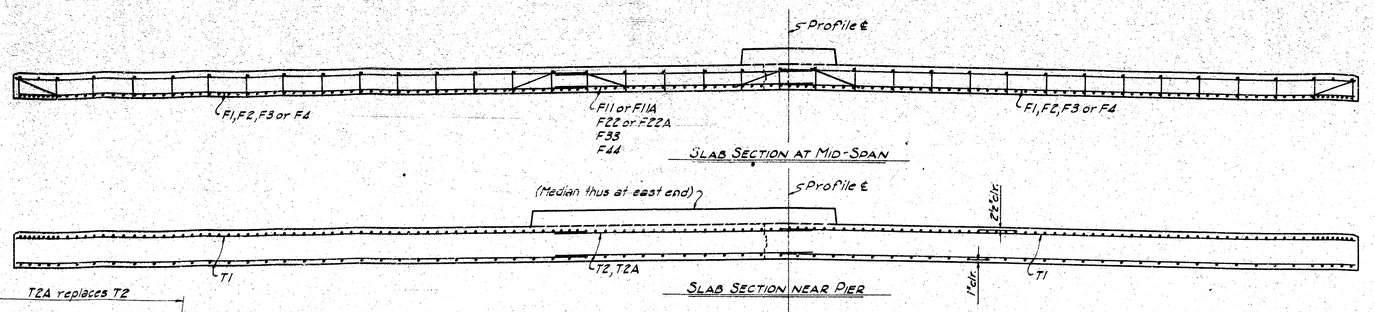
NOTE:

Refer to Sheet 9, Abutment No. 1. Details shown on this sheet apply to Abutment No. 1, except as otherwise indicated.

All concrete shall be Class AAA.

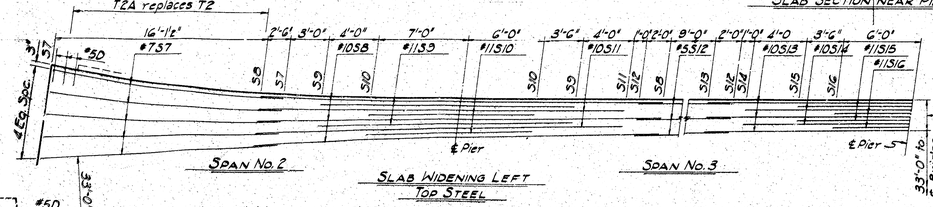
As Built Jan. 1971 C.P.S.

CITY OF WICHITA, KANSAS B. E. SMITH, CITY ENGINEER	
LINCOLN STREET BRIDGE AND DAM BIG ARKANSAS RIVER	
DETAILS, ABUTMENT 2	
R. S. DELAMATER CONSULTING ENGINEER WICHITA, KANSAS	DATE December, 1968 SCALE — DWG. NO. 68-E-10

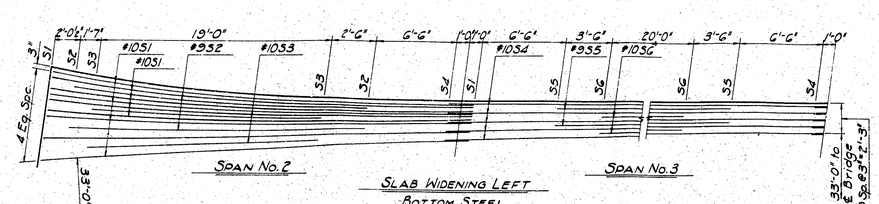


SLAB SECTION AT MID-SPAN

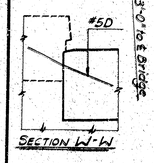
SLAB SECTION NEAR PIER



SPAN No. 2 — SPAN No. 3



SPAN No. 2 — SLAB WIDENING LEFT BOTTOM STEEL — SPAN No. 3



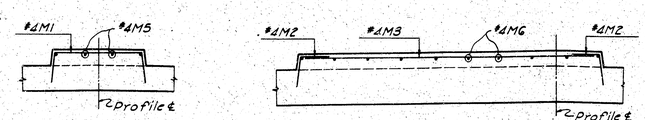
SECTION W-W

REINFORCING STEEL IN TOP OF SLAB

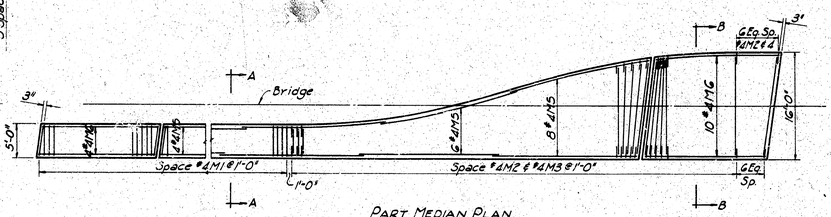
SLAB WIDENING LEFT TOP STEEL

REINFORCING STEEL IN BTTM. OF SLAB

NOTE:
Section X-X, and haunch ordinates, same as on abutment slab.

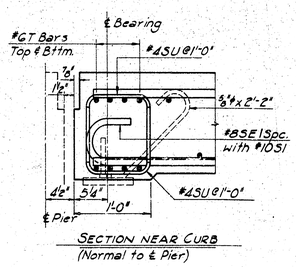


SECTION A-A — SECTION B-B

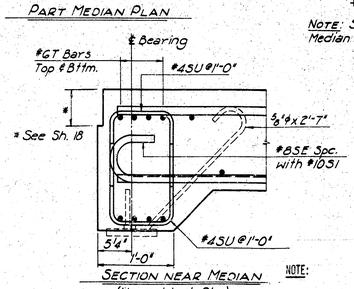


PART MEDIAN PLAN

NOTE: See Bridge Layout for Median Dimensions and Location.



SECTION NEAR CURB (Normal to ℄ Pier)



SECTION NEAR MEDIAN (Normal to ℄ Pier)

NOTE:
All concrete shall be Class AAA.

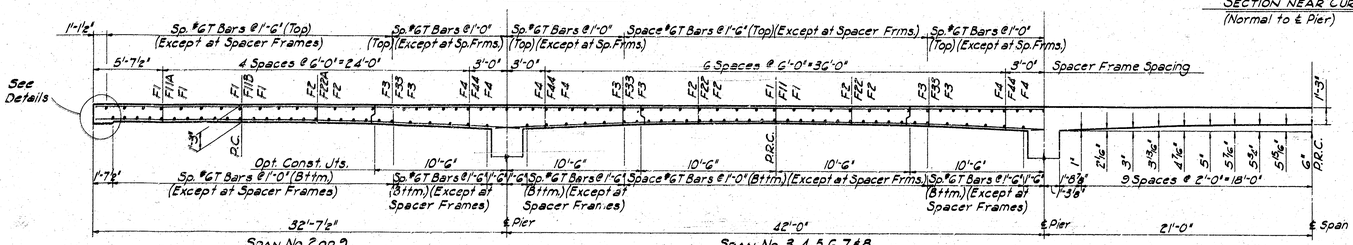
See Sheet 19 for Bar List and Bending Diagrams.

See Sheet 16 for Sidewalk Details.

See Sheet 7 for General Notes.

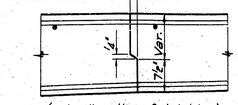
As Built Jan. 1971 C.P.S.

PART SLAB PLAN



SPAN No. 2 0 9 — PART LONGITUDINAL SECTION AT ℄ BRIDGE — SPAN No. 3, 4, 5, 6, 7 & 8

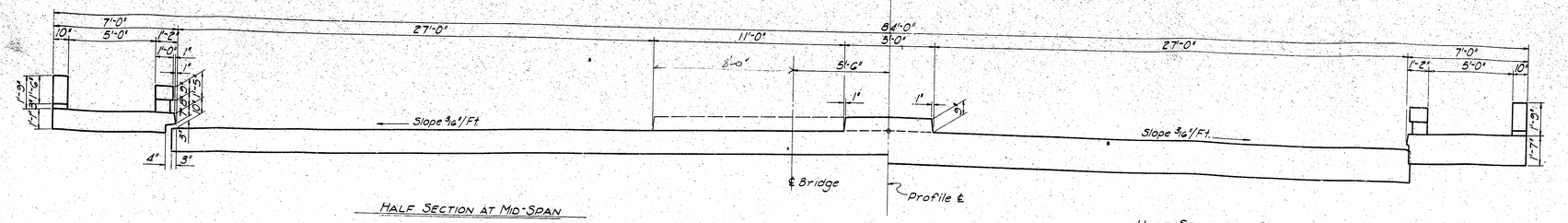
HAUNCH ORDINATES



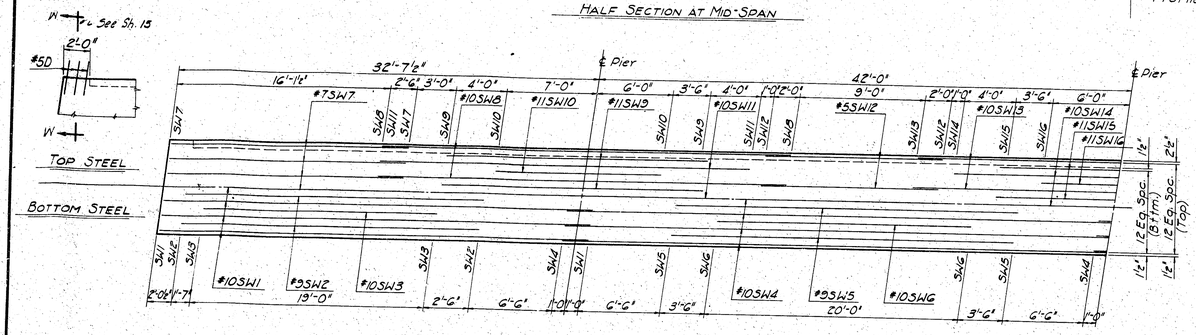
(Note direction of joint lap)

CONSTRUCTION JOINT

CITY OF WICHITA, KANSAS B. E. SMITH, CITY ENGINEER	
LINCOLN STREET BRIDGE AND DAM BIG ARKANSAS RIVER	
SUPERSTRUCTURE DETAILS	
R. S. DELAMATER CONSULTING ENGINEER WICHITA, KANSAS	DATE December, 1968 SCALE DWG. NO. 89-E-15

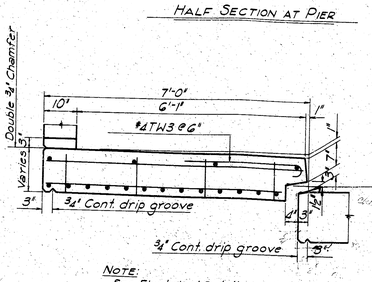


HALF SECTION AT MID-SPAN

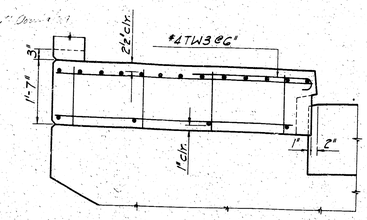


PART SIDEWALK PLAN

HALF SECTION AT PIER

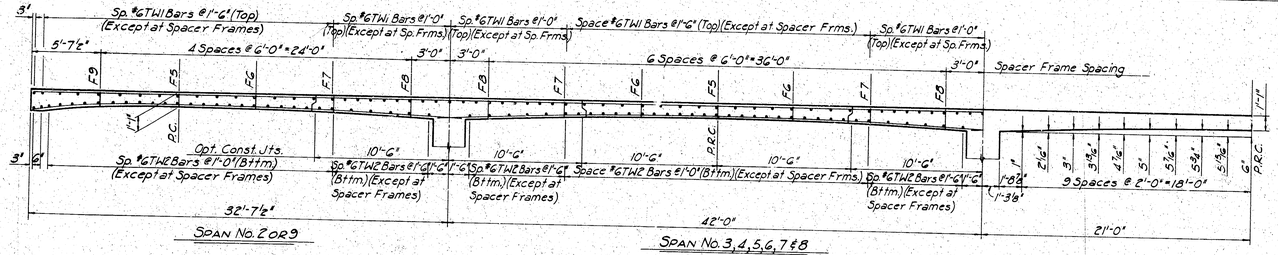


NOTE:
See Electrical Details, Sheet 21 for location of conduits.



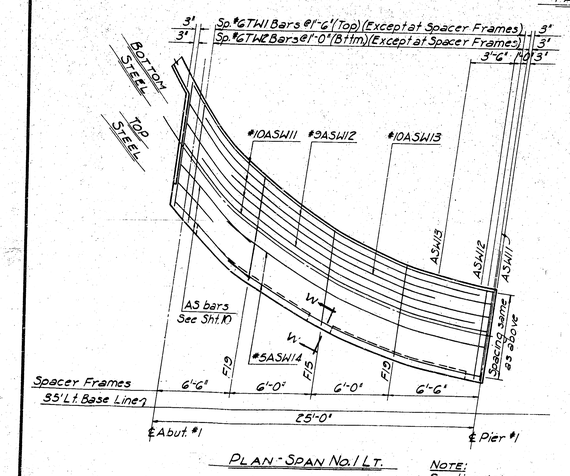
SECTION NEAR MID-SPAN

SECTION AT PIER



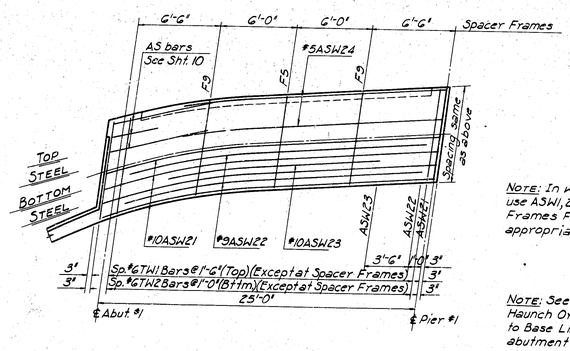
PART LONGITUDINAL SECTION AT ℄ SIDEWALK

HAUNCH ORDINATES



PLAN - SPAN No. 1 LT.

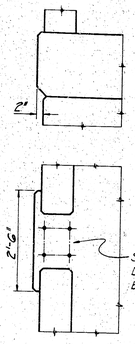
NOTE:
Section A-A same as at piers.



PLAN - SPAN No. 1 RT.

NOTE: In walks for Abut. #2 use ASW1, 2, 3 & 4 and Frames F5 & F9 in appropriate positions.

NOTE: See Sheet 10 for Haunch Ordinates, parallel to Base Line, for all abutment walks.



DETAIL OF EXTENSION FOR LIGHT SUPPORTS (Piers 2, 4, 6 & 8 Only)

NOTE:

All concrete shall be Class AAA.

See Sheet 19 for Bar List and Bending Diagrams.

See Sheet 17 for Handrail Details.

See Sheet 7 for General Notes.

As Built Jan. 1971 C.P.S.

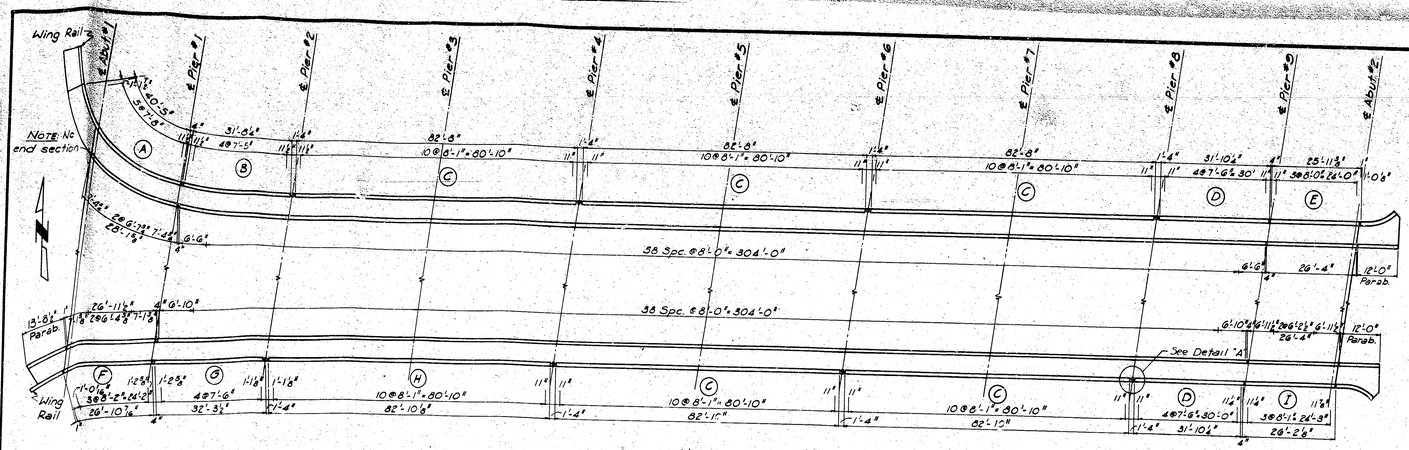
CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

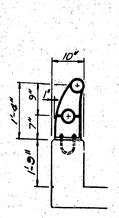
SIDEWALK DETAILS

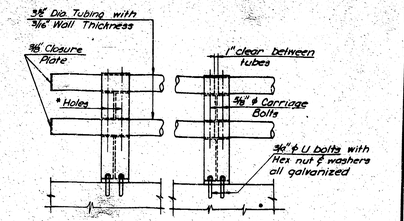
R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE December, 1955
SCALE ———
DWG. NO. 89-E-16

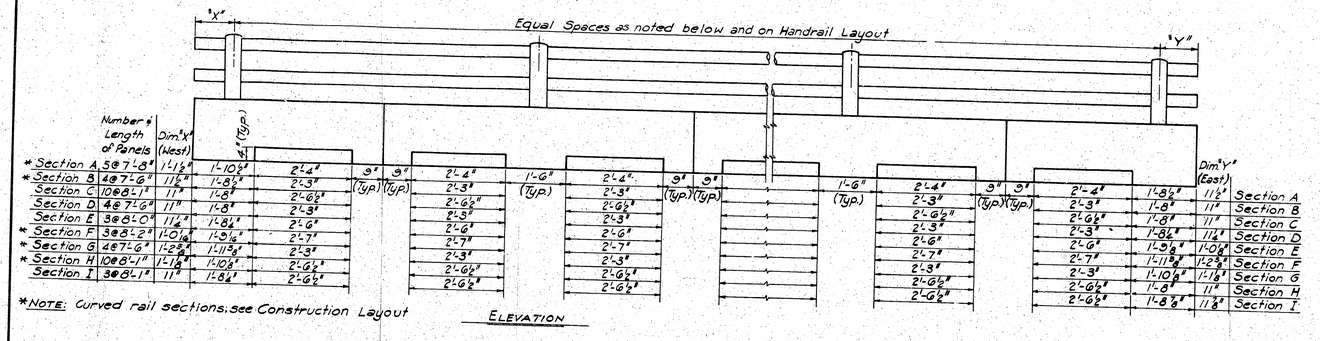


HANDRAIL LAYOUT





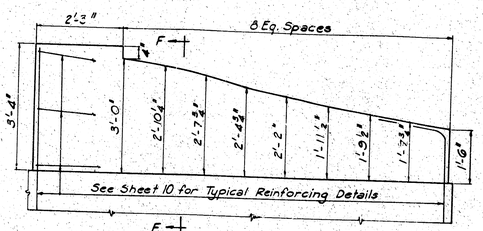
*Holes: ⅝" square holes in post under head and 11/16" round holes under nuts for ⅝" ϕ x 5½" carriage bolts with hex nuts.



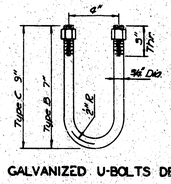
	Number & Length of Panels	Dim "X" (West)											Dim "Y" (East)	
* Section A	5 @ 7'-6"	1'-1½"	1'-10½"	2'-4"	3" (Typ.)	3" (Typ.)	2'-4"	1'-6" (Typ.)	2'-4"	3" (Typ.)	3" (Typ.)	1'-6" (Typ.)	2'-4"	1'-8½"	11½"	Section A
* Section B	4 @ 7'-6"	11½"	1'-8½"	2'-3"			2'-3"		2'-3"				2'-3"	1'-8"	11"	Section B
Section C	10 @ 8'-1"	11"	1'-8"	2'-6½"			2'-6½"		2'-6½"				2'-6½"	1'-8"	11"	Section C
Section D	4 @ 7'-6"	11"	1'-8"	2'-3"			2'-3"		2'-3"				2'-3"	1'-8½"	11½"	Section D
Section E	3 @ 8'-0"	11½"	1'-8½"	2'-6"			2'-6"		2'-6"				2'-6"	1'-9½"	10½"	Section E
* Section F	3 @ 8'-2"	1'-0½"	1'-9½"	2'-7"			2'-7"		2'-7"				2'-7"	1'-11½"	1'-2½"	Section F
* Section G	4 @ 7'-6"	1'-2½"	1'-11½"	2'-3"			2'-3"		2'-3"				2'-3"	1'-10½"	1'-1½"	Section G
* Section H	10 @ 8'-1"	1'-1½"	1'-10½"	2'-6½"			2'-6½"		2'-6½"				2'-6½"	1'-8"	11"	Section H
Section I	3 @ 8'-1"	11"	1'-8½"	2'-6½"			2'-6½"		2'-6½"				2'-6½"	1'-8½"	11½"	Section I

*NOTE: Curved rail sections: see Construction Layout

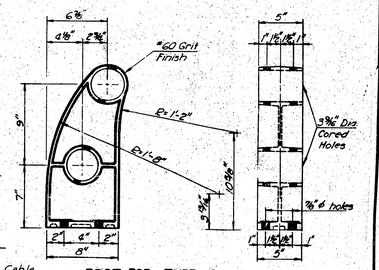
ELEVATION



ABUTMENT RAIL DETAIL

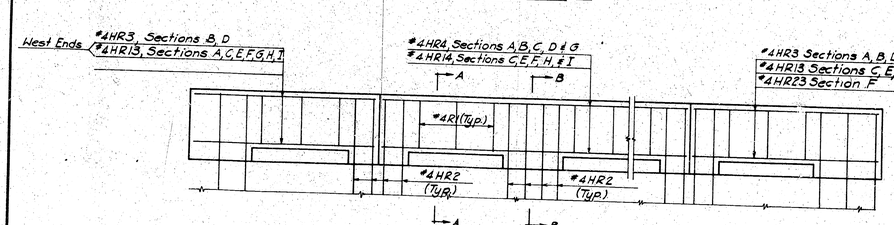


GALVANIZED U-BOLTS DETAILS

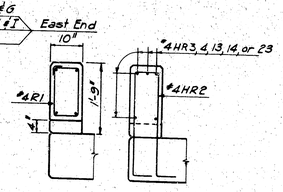


POST FOR TYPE C RAIL

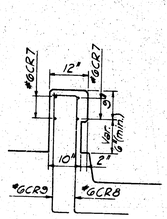
ALUMINUM HANDRAIL DETAILS TYPE C



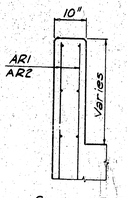
PART SIDEWALK RAIL ELEVATION SHOWING REINFORCING



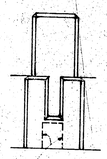
SECTION A-A SECTION B-B



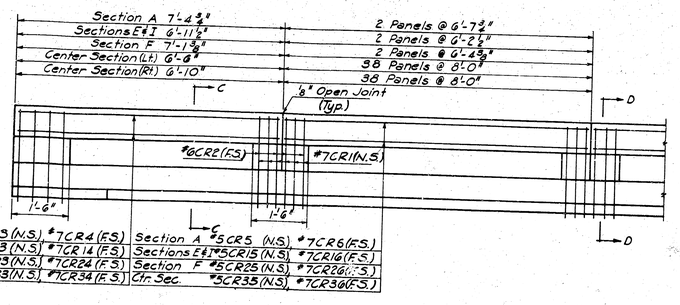
SECTION E-E



SECTION F-F

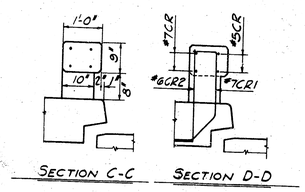


DETAIL "A"
Typical at Light Standard brackets

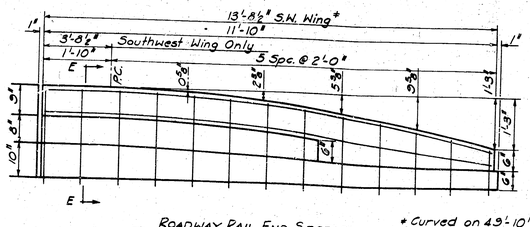


Section A	#5CR3 (N.S.)	#7CR4 (F.S.)	Section A #5CR5 (N.S.) #7CR6 (F.S.)
Sections E & I	#5CR13 (N.S.)	#7CR14 (F.S.)	Sections E & I #5CR15 (N.S.) #7CR16 (F.S.)
Section F	#5CR23 (N.S.)	#7CR24 (F.S.)	Section F #5CR25 (N.S.) #7CR26 (F.S.)
Ctr. Sec.	#5CR33 (N.S.)	#7CR34 (F.S.)	Ctr. Sec. #5CR35 (N.S.) #7CR36 (F.S.)

PART ROADWAY RAIL ELEVATION SHOWING REINFORCING



SECTION C-C SECTION D-D



ROADWAY RAIL END SECTION

* Curved on 49'-10" Radius; See approach slab, Sh. 20 Elevation shown from traffic side.

Notes: (Aluminum Handrail)

Handrail Tubing shall be fabricated in lengths to include two or three spaces.

Bolt holes in tubing at intermediate posts to be 11/16" diameter. At other posts 11/16" slotted holes centered on bolts @ 60°F.

All rail post flanges and webs shall have a minimum thickness of 5/16" with 3° draft. Nominal thickness of base shall be ¾" with minimum of ⅜". Aluminum shims between concrete and post base may be used. The space below post shall be thoroughly caulked with Alumilastic compound or other approved material.

As Built Jan, 1971 C.P.S

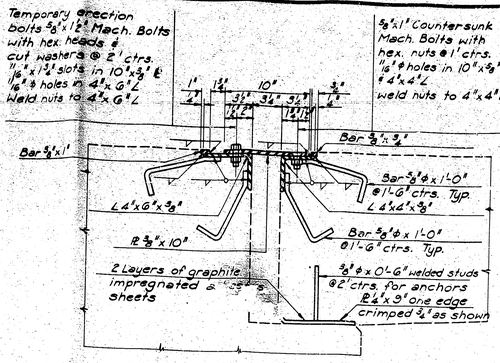
CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER
LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER
HANDRAIL DETAILS

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

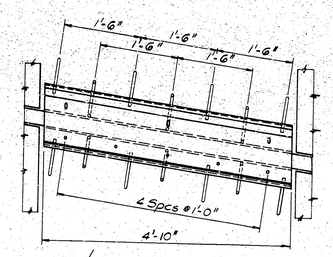
DATE December, 1968
SCALE
DWG. NO. 89-E-17

Temporary erection bolts $\frac{5}{8}$"x 1$\frac{1}{2}$" Mach. Bolts with hex. heads & cut washers @ 2' ctrs. 1$\frac{1}{16}$"x 1$\frac{1}{2}$" slots in 10"x$\frac{5}{8}$" ℓ 1$\frac{1}{16}$" ϕ holes in 4"x 4"x $\frac{7}{16}$" L weld nuts to 4"x 4"L

$\frac{5}{8}$"x1' Countersunk Mach. Bolts with hex. nuts @ 1' ctrs. 1$\frac{1}{16}$" ϕ holes in 10"x$\frac{5}{8}$" ℓ & 4"x 4"L weld nuts to 4"x 4"L



SECTION THRU SIDEWALK EXPANSION DEVICE

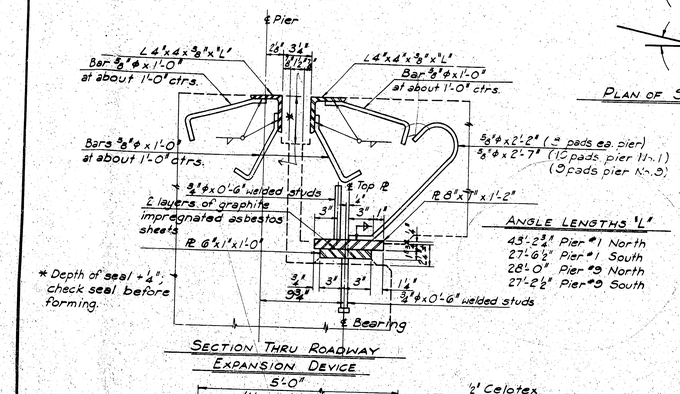


8°00' Rt. Skew Two thus at Pier #9

2°-17' Lt. Skew One thus at Pier #1 (North)

11°-51' Rt. Skew One thus at Pier #1 (South)

PLAN OF SIDEWALK EXPANSION DEVICES

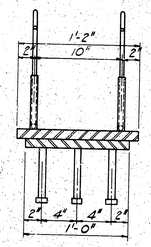


* Depth of seal + $\frac{1}{4}$"; check seal before forming.

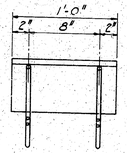
SECTION THRU ROADWAY EXPANSION DEVICE

ANGLE LENGTHS 'L'

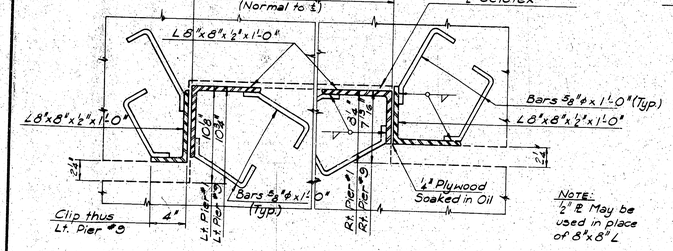
43'-2$\frac{3}{4}$" Pier #1 North
27'-6$\frac{1}{2}$" Pier #1 South
28'-0" Pier #9 North
27'-2$\frac{1}{2}$" Pier #9 South



FRONT VIEW

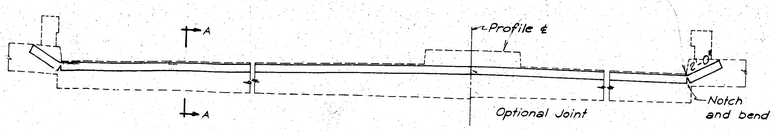


SIDE VIEW



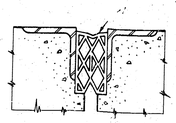
NOTE: ½" R May be used in place of 8"x 8" L

SECTION THRU KEY

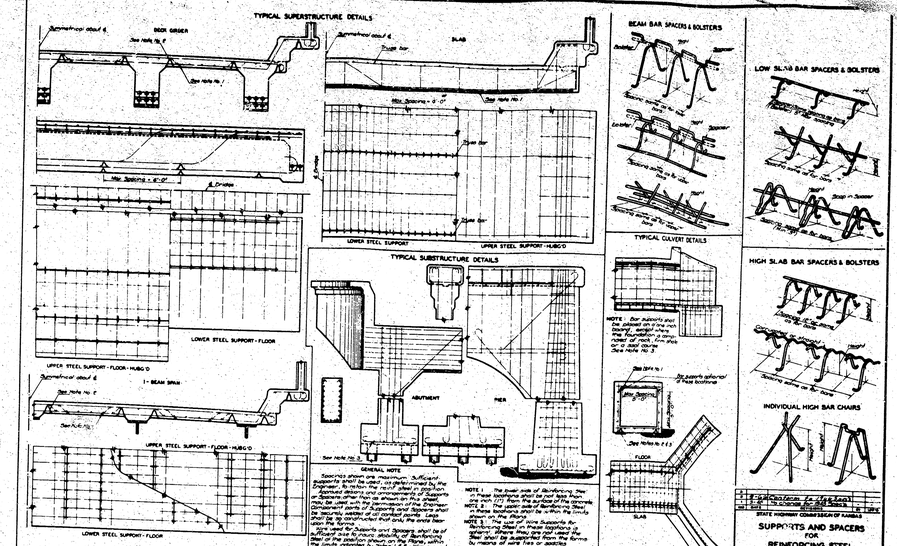


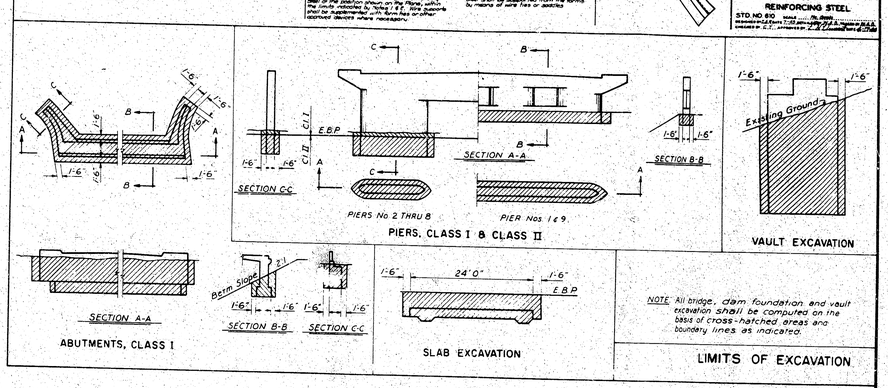
5" Acme Structural Joint Seal B-613 Install with Acme "E.P." Prima-Lub adhesive.

ROADWAY SECTION



SECTION A-A





NOTE:

All parts of expansion and bearing devices are included in the item of Structural Steel.

See Sheet 7 for General Notes.

CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

AUXILIARY DETAILS

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE: December, 1968
SCALE:
DWG. NO. 69-E-18

ABUTMENT NO. 1

STRAIGHT BARS				BENT BARS			
Mark	No.Req.	Size	Length	Mark	No.Req.	Size	Length
AF1	90	6	37'-0"	AF2	7	6	16'-0"
AF3	7	6	24'-0"	AF4	7	6	14'-0"
AF5	7	6	19'-0"	AF7	12	5	4'-6"
AF6	22	5	10'-6"				
				AB1	93	5	5'-6"
AR1	12	4	4'-8"				
AR2	32	4	4'-4"	AO1	10	4	8'-8"
AR3	12	4	10'-8"	AO2	33	4	11'-6"
AS1	83	10	26'-0"	AS5	47	7	11'-6"
AS2	41	9	23'-0"	AS6	50	7	15'-6"
AS3	41	10	16'-0"	AS7	82	6	15'-0"
AS4	42	8	20'-0"				
				AW5	12	5	10'-0"
AW1	6	5	12'-0"				
AW2	26	5	4'-0"	AV1	210	4	7'-0"
AW3	6	5	13'-0"	AV7	105	8	8'-0"
AW4	12	4	7'-0"	AV14	15	4	*
				AV15	15	4	*
AW6	210	8	6'-6"	AV24	11	4	*
				AV25	11	4	*
D	11	5	2'-6"				
				M1	27	4	7'-9"
M5	4	4	26'-0"				
T2C	31	6	*	SE1	76	8	4'-0"
T1	72	6	30'-0"	SE2	76	5	3'-6"
T2B	5	6	20'-6"				
TW1	32	6	6'-9"	F1	4	*	*
TW2	48	6	6'-3"	F5	1	*	*
				F9	2	*	*
BENT BARS (CONT.)				F10	2	*	*
ASW11	7	10	28'-0"	F11C	1	*	*
ASW12	4	9	24'-6"	F11D	1	*	*
ASW13	2	10	18'-0"	F15	1	*	*
ASW14	4	5	21'-0"	F19	2	*	*
ASW21	7	10	26'-6"	F20A	1	*	*
ASW22	4	9	23'-6"				
ASW23	2	10	16'-6"	TW3	104	4	3'-5"
ASW24	4	5	20'-6"				

ABUTMENT NO. 2

AF11	90	8	30'-0"	AB1	74	5	5'-6"
AR1	12	4	4'-8"	AF12	7	6	15'-0"
AR2	32	4	4'-4"	AF13	7	6	15'-3"
AR3	12	4	10'-8"	AF14	7	6	15'-0"
				AF15	7	6	14'-9"
AW1	12	5	12'-0"				
AW2	22	5	4'-0"	AV1	168	4	7'-0"
				AV2	8	4	16'-0"
T1	72	6	30'-0"	AV3	8	4	4'-6"
T2	36	6	14'-0"	AV4	14	4	*
				AV5	14	4	*
AV6	173	8	6'-6"	AV7	84	8	8'-0"
AS1	75	10	26'-0"	AS5	43	7	11'-6"
AS2	38	9	23'-0"	AS6	46	7	15'-6"
AS3	36	10	16'-0"	AS7	74	6	15'-0"
AS4	38	6	20'-0"				
				M2	54	4	3'-0"
M3	20	4	*				
M4	7	4	15'-6"	SE1	71	8	4'-0"
M6	10	4	26'-0"	SE2	71	5	3'-6"
TW1	39	6	6'-9"	TW3	104	4	3'-5"
TW2	54	6	6'-3"				
				AD1	10	4	8'-8"
ASW1	14	10	26'-0"	A02	27	4	11'-6"
ASW2	8	9	23'-0"				
ASW3	4	10	17'-0"	F1	4	*	*
ASW4	8	5	21'-0"	F11	2	*	*
				F10	2	*	*
				F20	1	*	*
				F5	2	*	*
				F9	4	*	*
				* See Bending Diagrams			

PIERS 2, 3, 4, 6, 7, 8, (Total for six Piers)

STRAIGHT BARS				BENT BARS			
Mark	No.Req.	Size	Length	Mark	No.Req.	Size	Length
PC1	468	7	22'-0"	PC4	432	5	10'-8"
PC2	36	7	15'-3"				
PC3	384	5	15'-0"	P0	504	4	7'-2"
PH1	54	11	40'-0"				
PH2	72	6	40'-0"				
PH3	108	11	30'-0"				
PH4	96	6	15'-0"	PU1	228	5	16'-3"
PH5	72	6	*	PU2	452	5	6'-3"
PH6	60	11	18'-0"	PU3	84	5	*
PH7	60	11	12'-0"	PU4	84	5	4'-7"
PH8	36	9	13'-0"	PU5	60	5	6'-3"
				PU6#	2	5	8'-3"
				PX1	1010	6	4'-3"
				PX2	48	6	3'-3"
				# For Pier No. 2 Only			

PIER NO. 5

PC1	78	7	22'-0"	PC4	40	5	10'-8"
PC2	64	7	15'-6"				
PC3	12	5	15'-9"	P0	84	4	7'-2"
PC5	52	5	18'-0"				
PH1	9	11	44'-0"				
PH2	12	6	40'-0"				
PH3	10	11	30'-0"	PU1	32	5	16'-3"
PH4	16	6	15'-0"	PU2	72	5	6'-3"
PH5	12	6	*	PU3	14	5	*
PH6	10	11	18'-0"	PU4	14	5	4'-7"
PH7	10	11	12'-0"	PU5	10	5	6'-3"
PH8	6	9	13'-0"	PU6	6	5	8'-3"
PH9	24	5	40'-0"				
				PX1	164	6	4'-3"
				PX2	8	6	3'-3"

PIER NO. 1

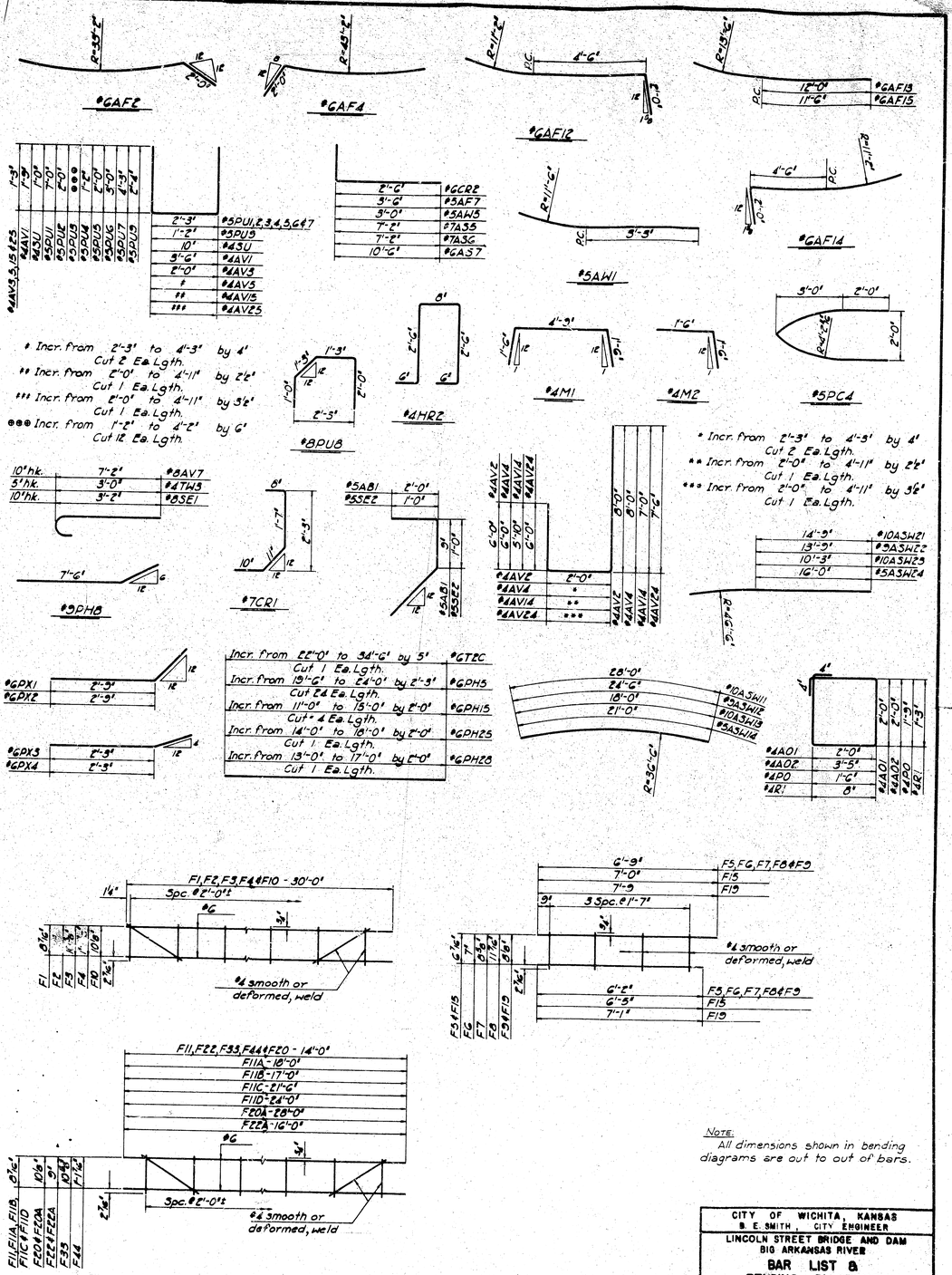
PC11	114	7	12'-0"	PC4	50	5	10'-8"
PC13	10	5	9'-0"				
PC23	10	5	10'-0"	P0	72	4	7'-8"
PC33	20	5	7'-0"				
PH7	10	11	12'-0"				
PH8	6	9	13'-0"				
PH11	20	8	36'-6"				
PH17	33	7	20'-0"	PU2	138	5	6'-3"
PH25	6	6	*	PU3	14	5	*
PH26	5	11	19'-0"	PU4	14	5	4'-7"
PH28	6	6	*	PU5	10	5	6'-3"
PH29	5	11	18'-0"	PU7	27	5	10'-9"
				PU8	48	5	5'-6"
				PU9	36	4	5'-10"
				PX3	172	6	3'-3"
				PX4	8	6	21'-9"

PIER NO. 9

PC11	104	7	12'-0"	PC4	50	5	10'-8"
PC33	40	5	7'-0"				
				P0	72	4	7'-8"
PH7	10	11	12'-0"				
PH8	6	9	13'-0"				
PH12	20	8	34'-0"				
PH15	12	6	*				
PH16	10	11	16'-0"	PU2	133	5	6'-3"
PH17	33	7	20'-0"	PU3	14	5	*
				PU4	14	5	4'-7"
				PU5	10	5	6'-3"
				PU7	27	5	10'-9"
				PU8	45	5	5'-6"
				PU9	34	4	5'-10"
				PX3	164	6	3'-3"
				PX4	8	6	21'-9"
				* See Bending Diagrams			

SUPERSTRUCTURE

STRAIGHT BARS				BENT BARS			
Mark	No.Req.	Size	Length	Mark	No.Req.	Size	Length
S1	154	10	33'-6"				
S2	76	9	23'-1"				
S3	72	10	19'-0"				
S4	450	10	44'-0"				
S5	228	9	27'-0"				
S6	216	10	20'-0"				
S7	150	7	18'-6"				
S8	76	10	33'-0"				
S9	76	11	20'-6"				
S10	72	11	13'-0"				
S11	74	10	30'-0"				
S12	228	5	13'-0"				
S13	190	10	33'-0"				
S14	185	10	27'-0"				
S15	190	11	19'-0"				
S16	180	11	12'-0"				
SW1	28	10	33'-6"				
SW2	16	9	23'-1"				
SW3	8	10	19'-0"				
SW4	84	10	44'-0"				
SW5	48	9	27'-0"				
SW6	24	10	20'-0"				
SW7	28	7	18'-6"				
SW8	16	10	33'-0"				
SW9	16	11	20'-6"				
SW10	8	11	13'-0"				
SW11	12	10	30'-0"				
SW12	48	5	13'-0"				
SW13	40	10	33'-0"				
SW14	30	10	27'-0"				
SW15	40	11	19'-0"				
SW16	20	11	12'-0"				
T1	862	6	30'-0"	R1	543	4	4'-6"
T2	326	6	14'-0"				
T2A	105	6	20'-0"	SE1	154	8	5'-0"
D	12	5	2'-6"	SU	310	4	2'-10"
M3	76	4	*	M1	243	4	7'-9"
M5	50	4	30'-0"	M2	152	4	3'-0"
TW1	406	6	6'-9"	TW3	1272	4	3'-5"
TW2	436	6	6'-3"				
CR3	8	5	7'-2"	CR1	588	7	4'-0"
CR4	8	7	7'-2"	CR2	408	6	3'-0"
CR5	8	5	6'-5"				
CR6	8	7	6'-5"	F1	20	*	*
CR13	16	5	6'-9"	F2	28	*	*
CR14	16	7	6'-9"	F3	28	*	*
CR15	16	5	6'-0"	F4	28	*	*
CR16	16	7	6'-0"	F5	16	*	*
CR23	16	5	6'-11"	F6	28	*	*
CR24	8	7	6'-11"	F7	28	*	*
CR25	8	5	6'-2"	F8	28	*	*
CR26	8	7	6'-2"	F9	4	*	*
CR33	8	5	6'-4"	F11	8	*	*
CR34	16	7	6'-4"	F11A	1	*	*
CR35	152	5	7'-10"	F11B	1	*	*
CR36	152	7	7'-10"	F22	13	*	*
				F22A	1	*	*
HR3	40	4	4'-6"	F33	14	*	*
HR4	80	4	7'-4"	F44	14	*	*
HR13	95	4	4'-9"				
HR14	300	4	7'-10"	HR2	748	4	6'-8"
HR23	5	4	5'-1"				
				* See Bending Diagrams			



NOTE:
All dimensions shown in bending diagrams are out to out of bars.

CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

BAR LIST & BENDING DIAGRAMS

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE December 1968
SCALE
DWG. NO. 69-E-19