LINCOLN STREET BRIDGE AND DAM

OVER THE

ARKANSAS RIVER

CITY OF WICHITA

WILLIAM D. ANDERSON, MAYOR

DONALD K. ENOCH — A. PRICE WOODARD JR.

WALTER M. KEELER — CLARENCE E. VOLLMER

COMMISSIONERS

RALPH WULZ, CITY MANAGER

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DEPARTMENT OF PUBLIC WORKS

R. W. BRUGGEMAN, P.E. DIRECTOR OF PUBLIC WORKS

BILL E. SMITH, P.E. CITY ENGINEER

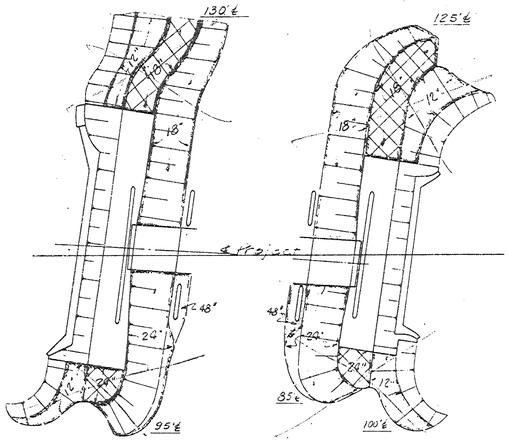
R. S. DELAMATER & ASSOCIATES, WICHITA, CONSULTING ENGINEERS

PROJECT C18-46

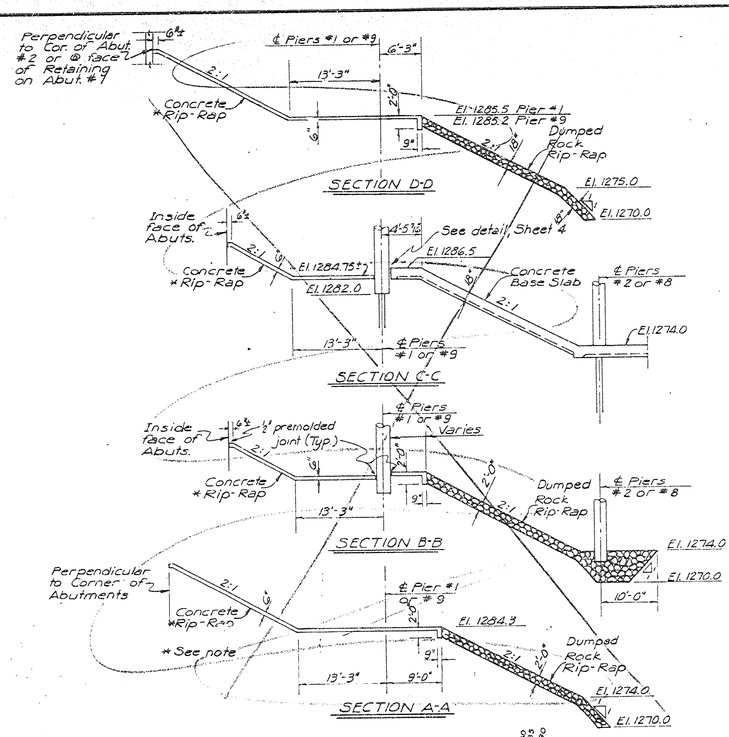
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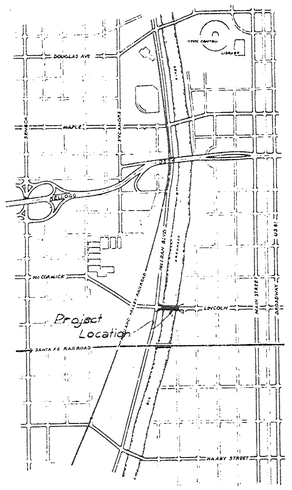
FLOOD CONTROL
OFFICE COPY
"AS-BUILT" PLANS

Received FEB 8 1971

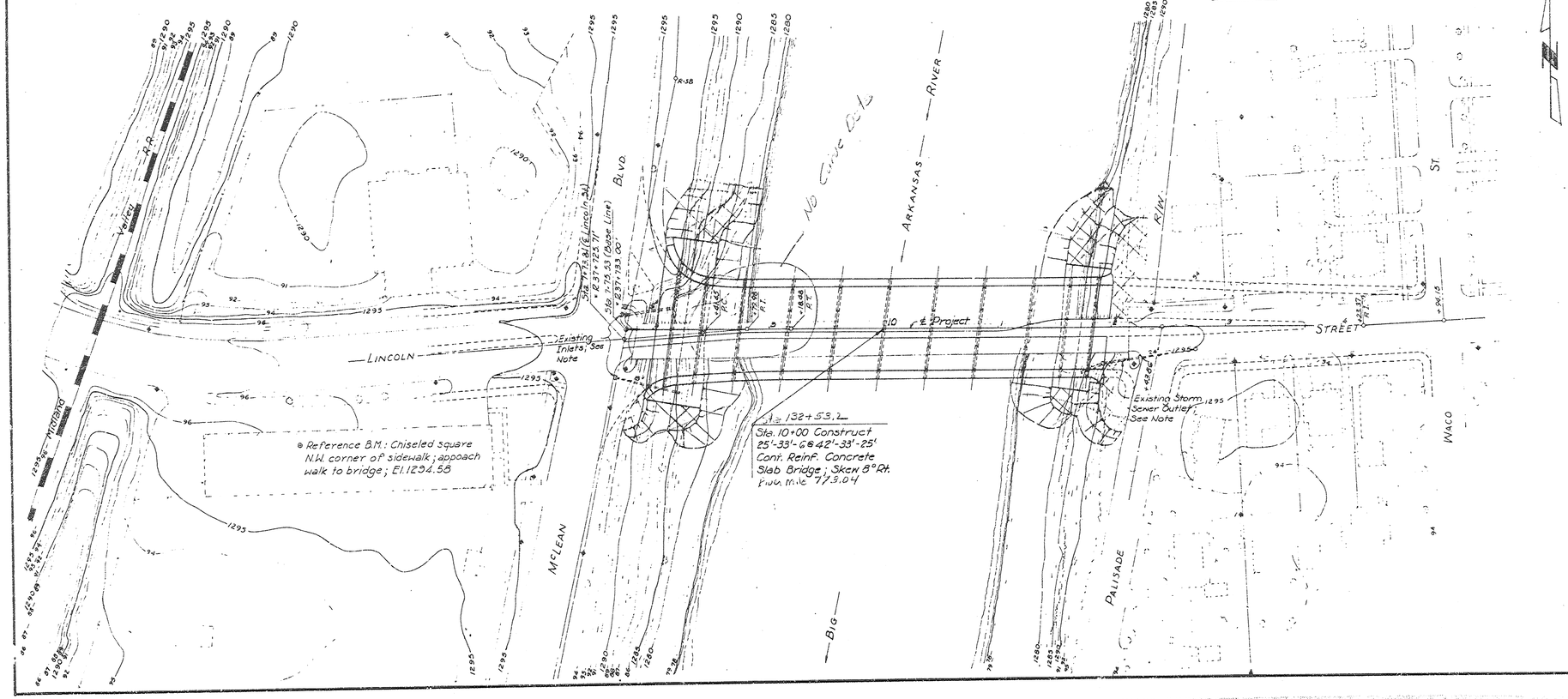


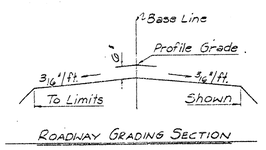
RIPRAP THICKNESS & LIMITS OF PROJECT GRADING





LOCATION MAP





ROADWAY GRADING SECTION

NOTE:

See Sheet 3 for Dam Layout.

See Sheet 9 for Bridge Layout.

See Sheet 3 for location of riprap sections; concrete riprap shall be Class A Concrete, 6" thick, reinforced with 6x6, 6/6 mesh, with toewalls as indicated. Form or cut joints as indicated and at approximately 10' spacing elsewhere, with steel thru the joints.

See Specifications for details of Dumped Rock Riprap.

Provide temporary drainage, as noted in the specifications, from the three existing inlets and storm sewers shown.

Approved FEB 9 1971

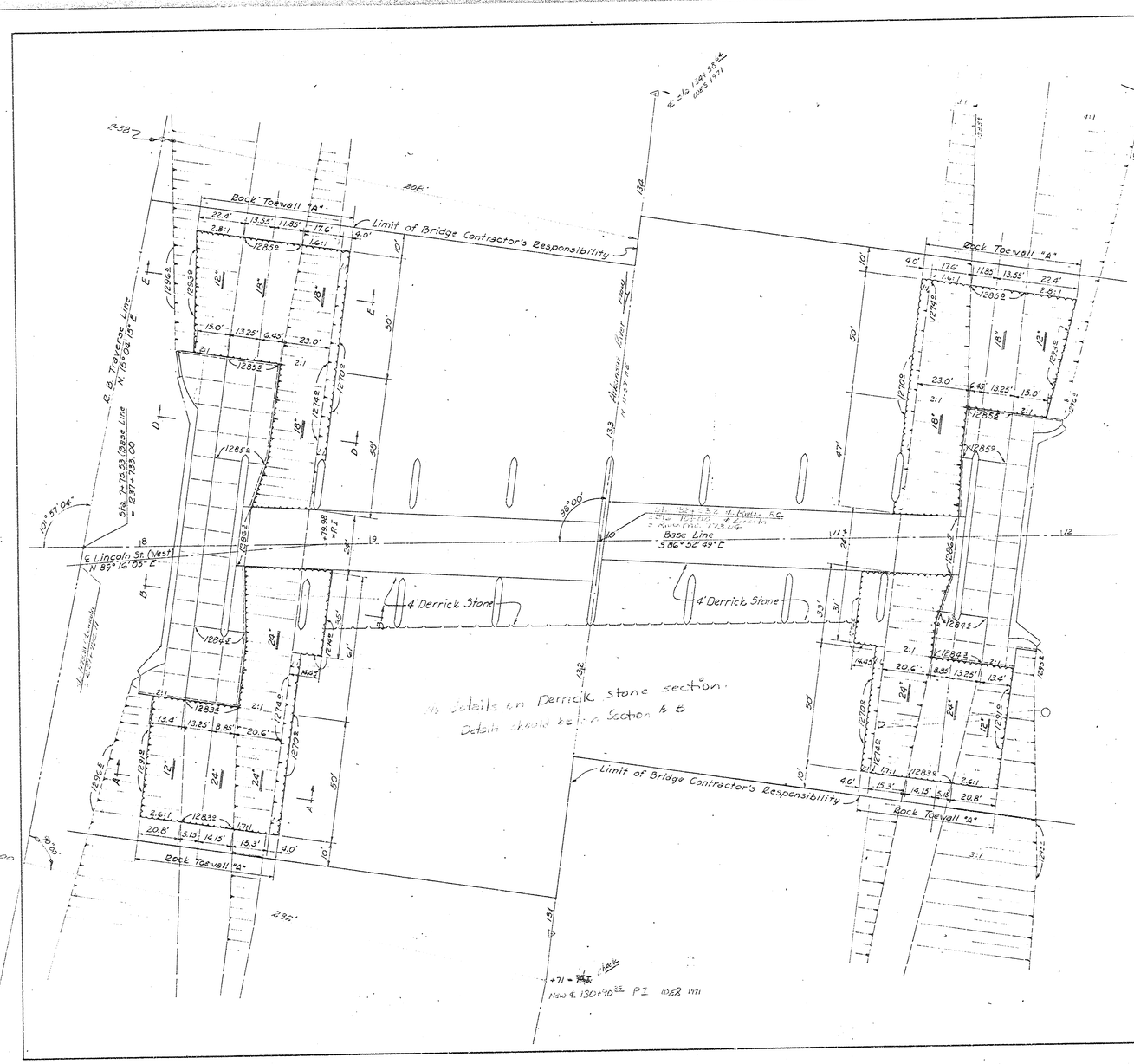
See Sheet No. 2-A for As Built

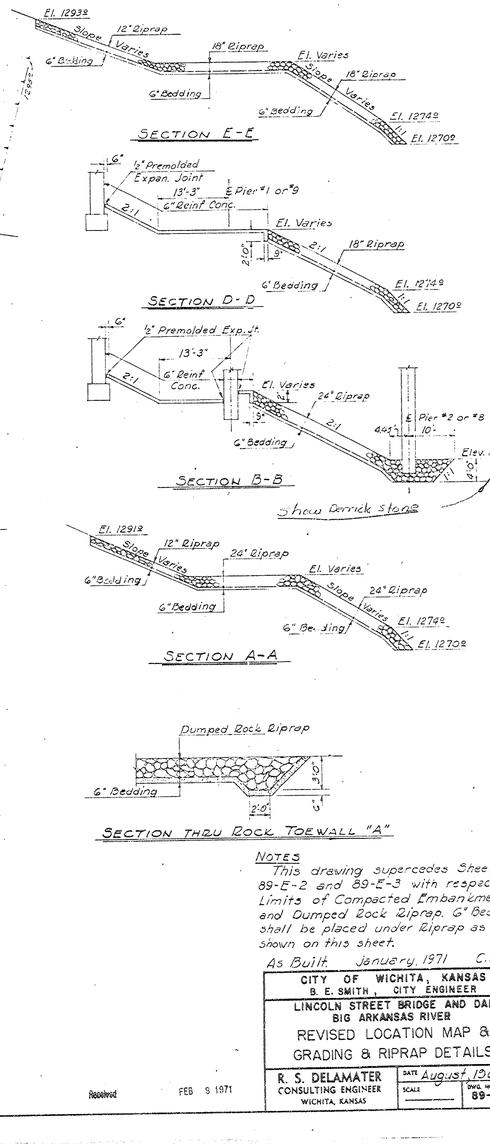
CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

LOCATION MAP & GRADING & RIPRAP DETAILS

R. S. DELAMATER CONSULTING ENGINEER WICHITA KANSAS	DATE December, 1968
	SCALE 1"=40'
	DWG. NO. 89-E-2





NOTES

This drawing supercedes Sheet Nos. 89-E-2 and 89-E-3 with respect to Limits of Compacted Embankment and Dumped Rock Riprap. 6" Bedding shall be placed under Riprap as shown on this sheet.

As Built January 1971 C.P.S.

Received FEB 9 1971

CITY OF WICHITA, KANSAS B. E. SMITH, CITY ENGINEER	
LINCOLN STREET BRIDGE AND DAM BIG ARKANSAS RIVER REVISED LOCATION MAP & GRADING & RIPRAP DETAILS	
R. S. DELAMATER CONSULTING ENGINEER WICHITA, KANSAS	DATE August 1969 SCALE — DWG. NO. 89-E-2A

Notes:
Shear weld all upstream and Crosswall joints between piles after the piling is driven and cut off at proper elevation. Shear welds shall consist of 1/4" bead welds on each side of joint, 12" long, near top.

T12A RIVETED (Typical)

C12A

One Cell Thus Each Side

Three Cells Thus Each Side

One Thus Each End

MP115 (Typ.)

T12A (Typ.)

℄ Steel Sheet Piling (Typ.)

℄ Concrete Base Support Slab

℄ Pier #9

75'-0" ± 41 MP115 (West Side)

75'-0" ± 41 MP115 (East Side)

Base Line (Bridge)

Control Point; All layout Symetrical in rotation about this point, except end extensions.

30'-10¾" 18 MP115

32'-4⅞" 19 MP115 (Typ. 3 Cells)

25'-10⅜" 15 MP115

PLAN
SHEET PILING DETAIL
(Scale: 1/8" = 1'-0")

Design W.S. El. 1290.0

Top of Dam El. 1284.0

Design Flow El. 1275.0

El. 1277.0 Excavation Boundary Plg

Top Concrete Base Slab El. 1274.0

Top Sheet Piles-El. 122..25

Class I ?
Class II

El. 1286.50

MP115 × 20'-0" Steel Sheet Piling (Both Faces)

MP115 × 32'-0" Steel Sheet Piling

MP115 × Varies Steel Sheet Piling (Both Faces)

Top of Shale

ELEVATION

W.S. El. 1284.00

Flow

Air

Firestone Fabridam

℄ Upstream Bolts

Water 6' Deep = 74,000 Gal. in each Bay

Approx. Edge of Folded Fabric

El. 1275.0

Base El. 1274.00

Top Sh. Pile @ El. 1272.75

℄ Downstream Bolts

℄ Sheet Piling

℄ Sheet Piling

SECTION THRU DAM ℄ BASE

Sta 7+75.53 (Base Line) R 31°-19'-00" (R.B. Traverse)

Sta 7+78.00 (R.B. Traverse Line)

T.H.#12

T.H.#32

T.H.#52

T.H.#42

T.H.#22

Limits of Rip-Rap

Encroached ℄ 1285.0 Fillet

4' Derrick Stone Riprap

BIG ARKANSAS RIVER

℄ Dam

Firestone Fabridam

℄ Conc. Base Support Slab

Base Line (Bridge)

Control Vault

Sta 11+84.0

℄ Abut. #2

12"×9'-0" CMP (Galv.)

Meter Box

Base Line

Control Vault

13'-0"

12"×11'-0" CMP (Galv.)

CONTROL VAULT & METER BOX LOCATION

PLAN

STEEL PILE LAYOUT

SCALE 1"=15'

NOTE:

See Sheet B for Bridge Layout.

See Sheet 24for details of concrete riprap and limits of riprap construction and bank grading.

See Sheet 4 for details of Dam Foundation Slab and gtoing layout outside of Control Vault.

See Sheet 5 for Control Vault Details.

Weld sheet pile tops in upstream and shear walls as noted above.

As Built Jan. 1971 C.P.S.

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

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

DAM LAYOUT

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE December, 1968
SCALE 1"=15'
DWG. NO. 89-E-3

Received FEB 5 1971

PLAN
BOTTOM STEEL

PLAN
TOP STEEL

PLAN AT PIER #5

SECTION D-D

EAST DAM

WEST DAM

PIPE VAULT

PIPING LAYOUT

SECTION AT END

SECTION A-A

SECTION B-B

SECTION C-C

SECTION X-X

DEVELOPMENT OF BOLTING
EAST HALF SIMILAR & OPPOSITE

SECTION
INLET-OUTLET PIPING DETAIL

UPSTREAM ATTACHMENT

DOWNSTREAM ATTACHMENT

FABRIDAM ATTACHMENTS

NOTE:

See Sheet 3 for Dam Layout, riprap and bank grading.

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

Note the area to have hard troweled finish and epoxy coating; remaining area to be float finish.

AS BUILT JAN, 1971 C.R.S.

CITY OF WICHITA, KANSAS
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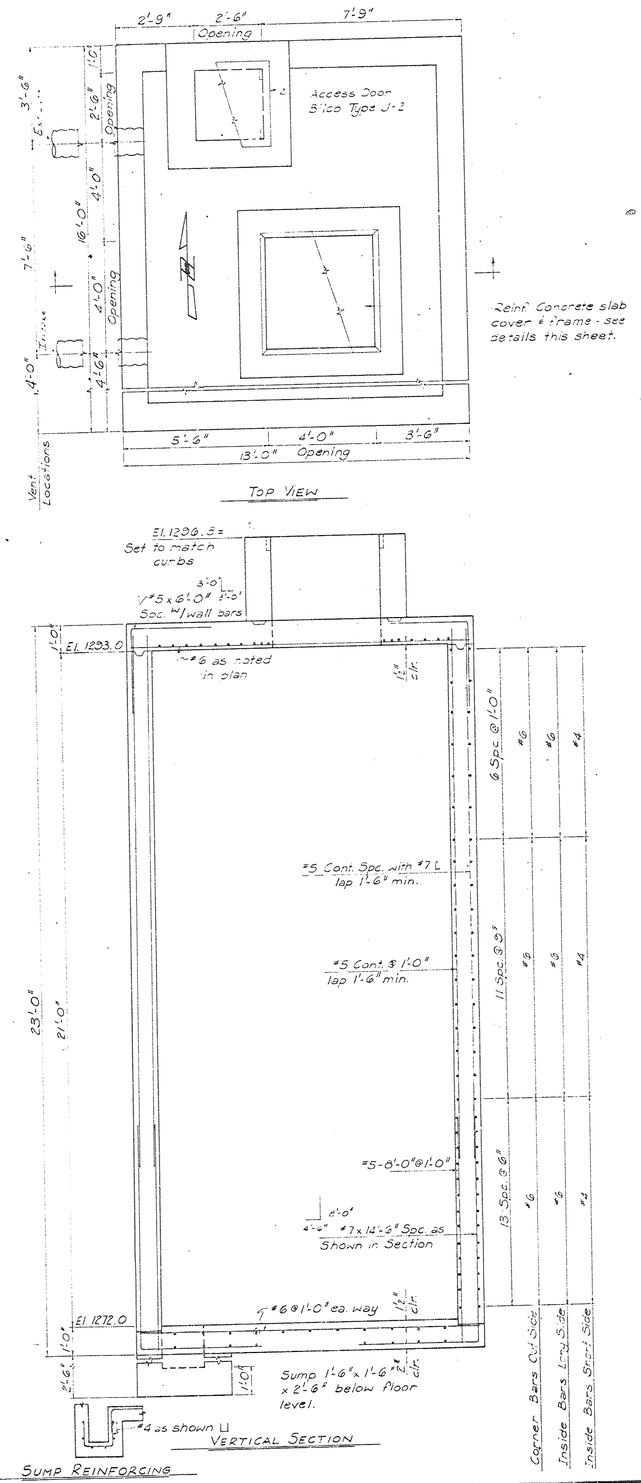
LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

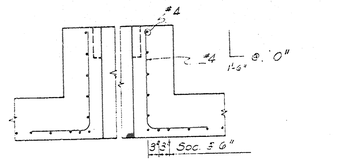
DAM FOUNDATION DETAILS

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WICHITA, KANSAS

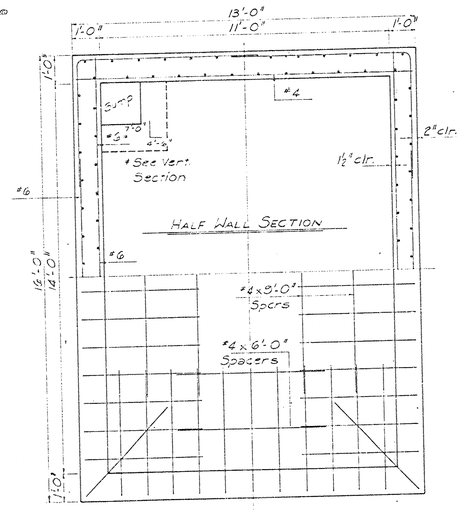
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SCALE —
DWG. NO. 89-E-4

Received FEB 9 1971

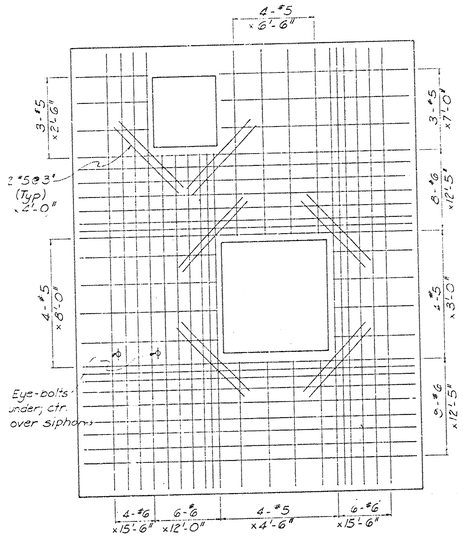




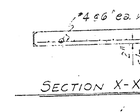
TYPICAL REINFORCING
EACH FACE EACH SHAFT



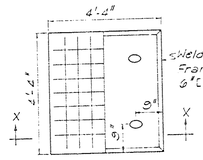
HALF FLOOR PLAN
Steel in Bottom Face
Steel in top face - see Vert Section



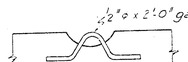
TOP REINFORCING



SECTION X-X

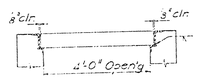


CONCRETE COVER DETAIL

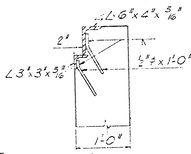


FOUR LIFTING LOOPS THUS

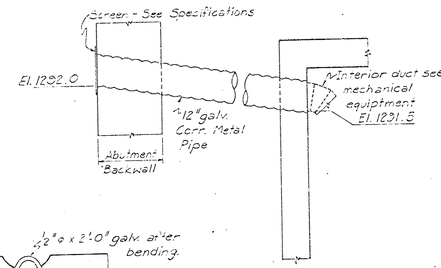
Note: Cover frames and shaft frames - 2½" in the shop to proper clearance before galvanizing.



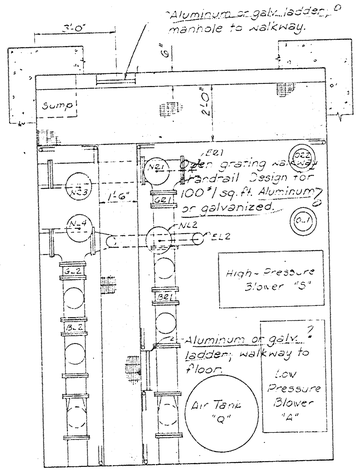
SECTION THRU CONCRETE COVER AND FRAME



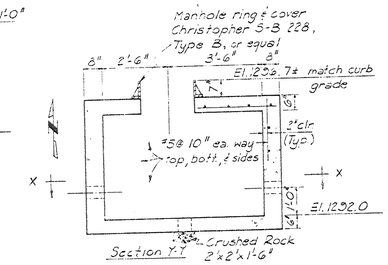
FRAME DETAIL



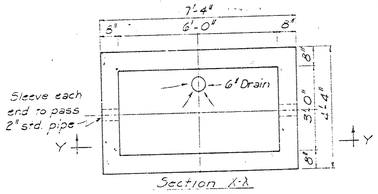
VENT DETAIL



WALKWAY PLAN
AT EL. 1284.0



Section Y-Y



Section X-X
METER BOX DETAIL

NOTE:

All concrete shall be Class A.

Waterproof all vertical walls below elevation 1294.0 in accordance with the specifications.

Install walkways and ladders as indicated and as specified.

See specifications for details of manhole and equipment shaft frame and cover, and ventilation ducts.

After equipment is in place, seal the concrete cover with caulking compound.

As Built JAN, 1971 C.P.S.

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

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

CONTROL VAULT DETAILS

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE December, 1968
SCALE
DWG NO 89-E-5

Received FEB 9 1971

LEGEND

A	SUTORBILT BLOWER MODEL 4MV-2 1/2" INLET-OUTLET-1550 R.P.M.-122 C.F.M. AT 5 P.S.I. 5 H.P., WITH BASE-BELT DRIVE-DRIVE GUARDS AND ADJUSTABLE WEIGHTED PRESSURE RELIEF VALVE
B	CRANE MONARCH BUTTERFLY VALVE-WITH AIR OPERATING CYLINDER
C	FLAST-O-MATIC VALVE-SERIES EE-NORMALLY CLOSED 2"
D	FLAST-O-MATIC VALVE-SERIES EE-STANDARD 2"
E	BAILEY FLOAT VALVE NO 27 P-2"
F	VICTAULIC BUTTERFLY VALVE 4"
G	CRANE MONARCH BUTTERFLY VALVE 8"
H	ASCO SOLENOID VALVE 1"-CAT NO.8030D2 2 WAY VALVE NORMALLY CLOSED
I	GLOBE VALVE 1"
J	CLIPPARD MINIMATIC CONTROL VALVES MODEL MJV-3
K	SMITH BLAIR COUPLINGS MODEL NO 435 6"X8"
L	DRESSER COUPLINGS STYLE NO 3/4"X1/4"
M	MAGNETHOL WATER LEVEL CONTROL-MODEL NO 27
N	GALVANIZED FLOAT TANK 12" DIA X 5'-0" LONG
O	EMERGENCY AIR BLOWOFF TANK LOWER 8"X11'-0"-UPPER 12"X3'-0"
P	DUAL PRESSURE SWITCH RANGE 0 TO 5 P.S.I.
Q	AIR PRESSURE STORAGE TANK 2'-9" DIA X 5'-0" HIGH
R	TECHNOCHECK CHECK VALVE
S	SUTORBILT BLOWER MODEL 3NB-1 1/4" INLET-OUTLET-1670 R.P.M. 34 C.F.M. AT 10.1 P.S.I. 3 H.P. WITH BASE BELT DRIVE DRIVE GUARDS AND ADJUSTABLE WEIGHTED PRESSURE RELIEF VALVE
T	SINGLE STAGE ELECTRIC AIR COMPRESSOR 1/4 H.P. 2 CYL. 2.1 C.F.M. 150 P.S.I. CUTOUT PRESSURE MAY BE LOCATED WITH AIR OR WATER SYSTEM
U	ASCO 3 WAY SOLENOID VALVE 1/4" CAT NO 8321Z3 CONST FIG NO 2 NORMALLY CLOSED
V	1/2" NEEDLE VALVE
W	AIR PRESSURE GAUGE-0 TO 5 P.S.I.
Y	ASCO SOLENOID VALVE 2"-TWO-WAY, NORMALY CLOSED
Z	APCO DRAIN VALVE 3/4" NO. 65, 3/16" DRAIN OPENING

P.C. BALL VALVE 1" & 2"

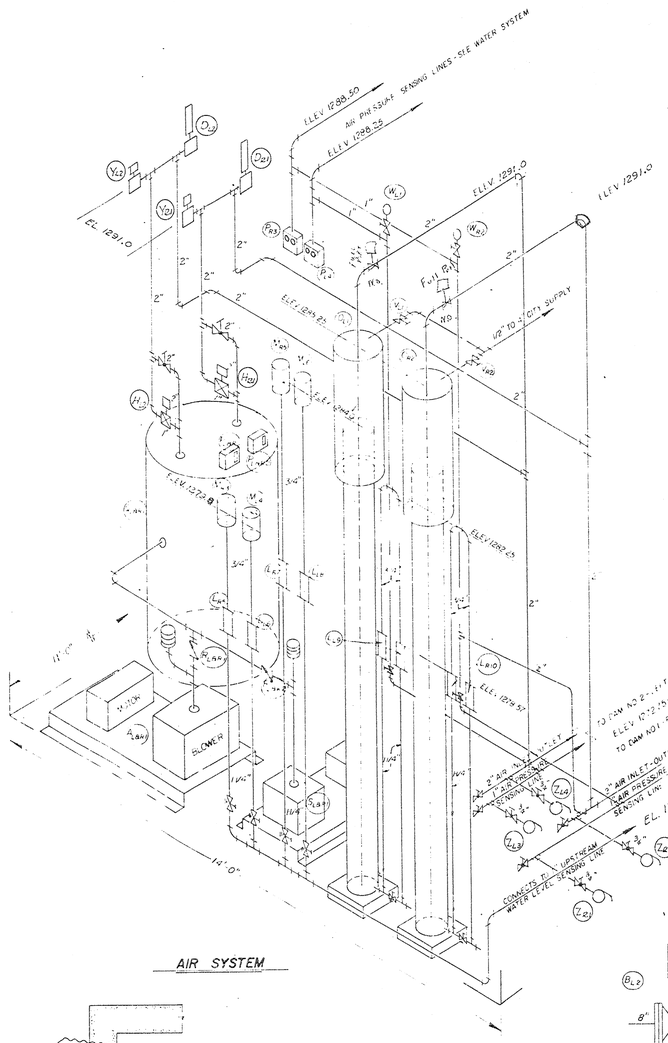
OHIO BRASS GLOBE VALVE

L-R DESIGNATES EITHER LEFT OR RIGHT DAM, FACING UPSTREAM

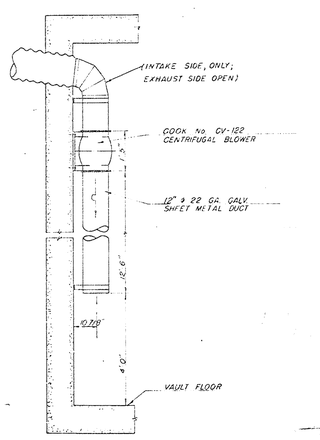
1,2,3 ETC DESIGNATES THE NO. OF THE PIECE OF EQUIPMENT

SUMP PUMP NOT SHOWN

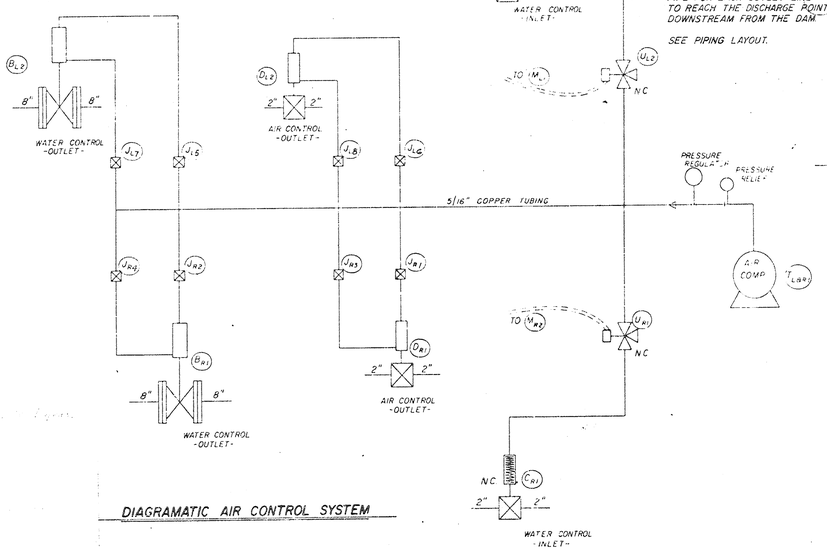
Chairman, Board of Public Utilities
City of Wichita
Wichita, Kansas



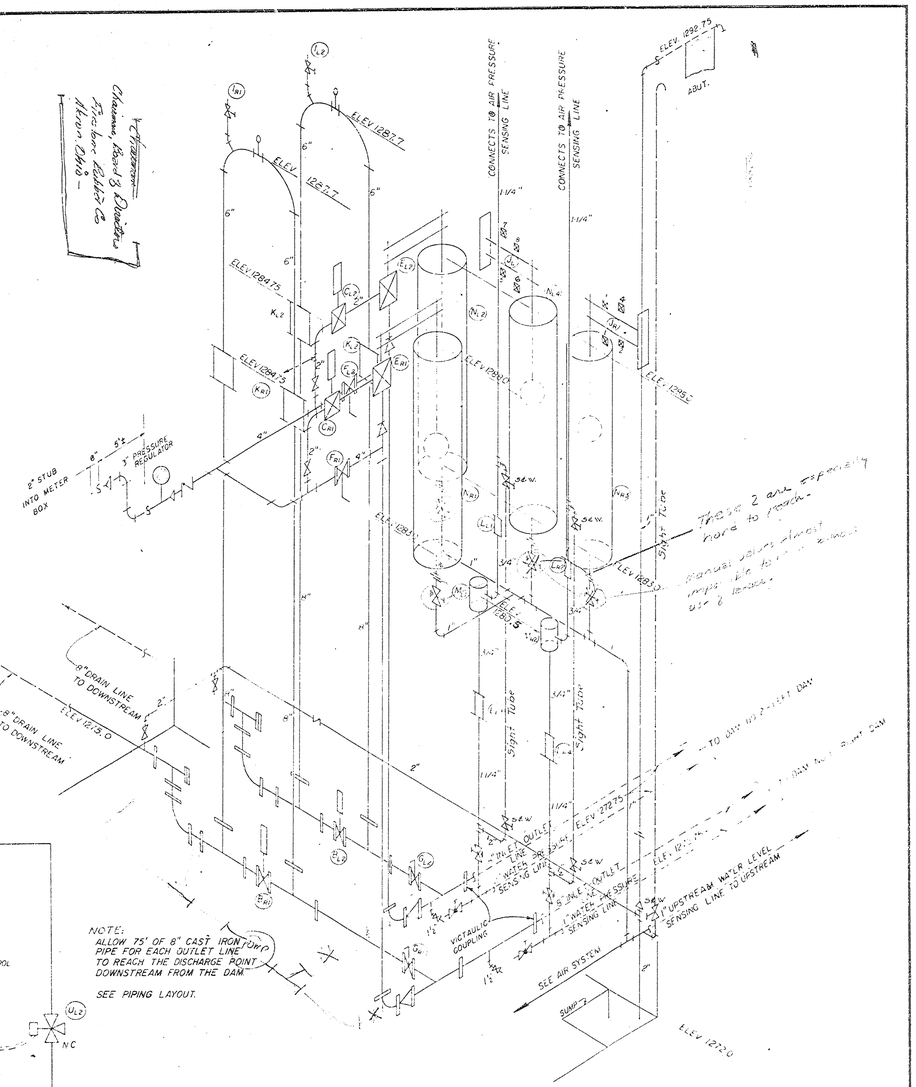
AIR SYSTEM



DETAILS OF VENTILATOR INTAKE BLOWER



DIAGRAMATIC AIR CONTROL SYSTEM



These 2 are 5 ft apart vertically

Manual valve should open to 1/2 to 1 turn open

NOTE:
ALLOW 75' OF 8" CAST IRON PIPE FOR EACH OUTLET LINE TO REACH THE DISCHARGE POINT DOWNSTREAM FROM THE DAM

SEE PIPING LAYOUT.

WATER SYSTEM

NOTE:

See Sheet 5 for Vault and Meter Box details.

See Sheet 6 for further details of mechanical units.

Water meter setting and connection will be done by others.

Piping layout is diagramatic, only, and subject to such shifting and detailed arrangement as required to provide adequate clearances within the vault and to align most efficiently with piping runs to and from outside the vault.

AS BUILT JAN. 1971 C.P.S.

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

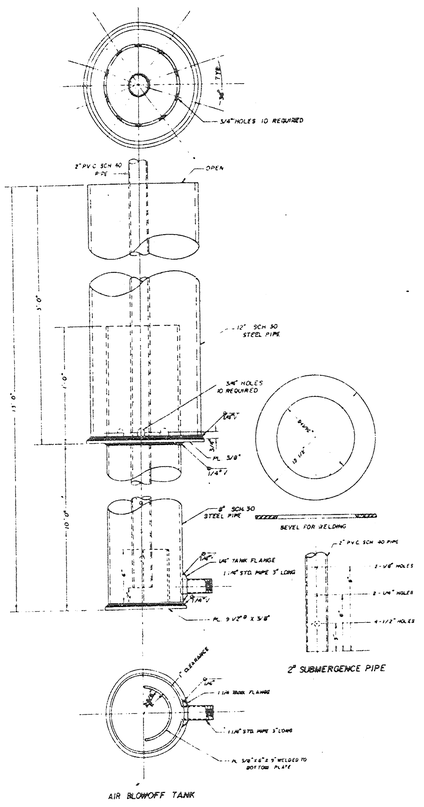
LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

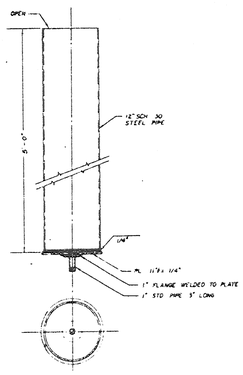
PIPING & CONTROLS

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

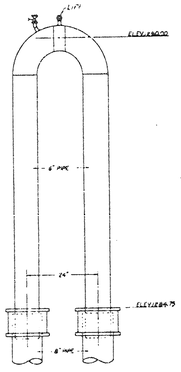
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DWG. NO. 89-E-6

FEB 9 1971

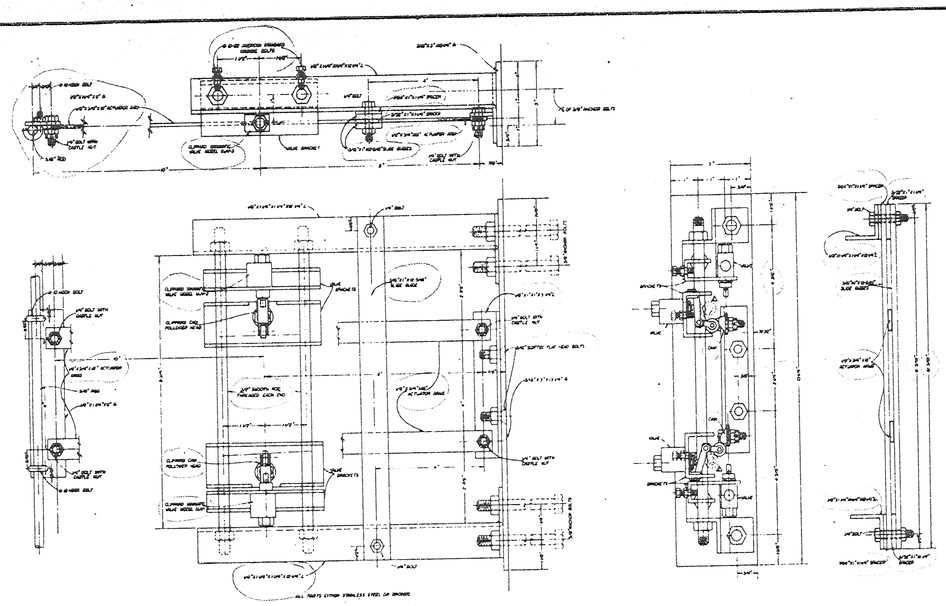




FLOAT TANK

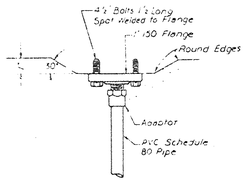


TOP PORTION OF SIPHON

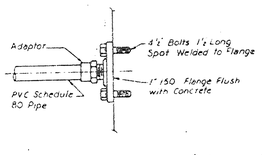


CONTROL VALVE ASSEMBLY

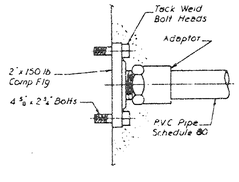
CAN NOT READ DIMENSIONS



1" BOTTOM & SLOPE CONNECTION



1" PIER CONNECTION



2" PIER CONNECTION

SUMMARY OF GRADING AND BANK PROTECTION QUANTITIES		
Item	Quantity	Unit
Removal of Existing Structure	L.S.	L.S.
Compacted Embankment	4,538	Cu. Yds.
Dumped Rock Riprap	2,486	Cu. Yds.
Reinforced Concrete Riprap	885	Sq. Yds.

SUMMARY OF DAM QUANTITIES		
Item	Quantity	Unit
Slab Excavation	1,230	Cu. Yds.
Steel Sheet Piling	5,773.6	Lin. Ft.
Class AAA Concrete	505.8	Cu. Yds.
Reinforcing Steel	66,000	Lbs.
Anchor Bolts (680 bolts)	L.S.	L.S.
Fabridams Complete	L.S.	L.S.
Steel Sheet Piling(MP115)	10,027.5	Lin. Ft.

* SUMMARY OF CONTROL VAULT QUANTITIES		
Item	Quantity	Unit
Vault Excavation	190	Cu. Yds.
Class A Concrete	64.3	Cu. Yds.
Reinforcing Steel	11,100	Lbs.
Vault Accessories	L.S.	L.S.
Electrical Installation	L.S.	L.S.

*Quantities include Meter Box

SUMMARY OF BRIDGE QUANTITIES

Location	Excavation		Concrete		Steel		10" Steel Piles	12" Steel Piles	Bridge Handrail	Lights Under Br.	T. & S. L. Conduits	Approach Slabs	
	Class I Cu. Yds.	Class II Cu. Yds.	Class A Cu. Yds.	Class AAA Cu. Yds.	Reinf. Lbs.	Struct. Lbs.	Lin. Ft.	Lin. Ft.	Lin. Ft.	L.S.	L.S.	Sq. Yds.	
Abutment #1	196			280.3	55,480		569.2						
Pier #1	34		76.7		12,240			584.7					
Pier #2		45	108.8		16,540			531.5					
Pier #3		45	109.1		16,300			541.5					
Pier #4		45	109.6		16,500			521.8					
Pier #5		46	146.3		17,380			477.6					
Pier #6		45	109.6		16,500			479.6					
Pier #7		45	109.1		16,500			493.3					
Pier #8		45	108.3		16,300			494.9					
Pier #9			71.1		11,330			481.4					
Pier #10	32			250.0	44,550		447.5						
Abutment #2	163												
Superstr.				1,494.3	492,990	6,320			715.50	L.S.	L.S.		
Total	425	318	548.6	2,012.6	671,480	6,320	#1,016.7	14,406.3	715.50	L.S.	L.S.	221.5	

#20@30' 40'
#14@50' 20@34' 22@40' 20@52' 20@36'

Received FEB 9 1971

GENERAL NOTES

COMMON EXCAVATION: There will be no direct payment for Common Excavation, or borrow, as such. Payment will be for material in place, as Compacted Embankment.

EMBANKMENTS: The Contractor shall construct the embankments and grade the berms at the abutments as shown on Construction Layout and Contour Map prior to construction of the bridge.

EXCAVATION: Elevation 1277.0 constitutes the Excavation Boundary Plane for estimating quantities for Class I and Class II Bridge Excavation and Dam Slab Excavation; Class I above, Class II and Dam Slab Excavation below; see Sheet 18 for limits of pay excavation.

SOUNDINGS: Sounding information shown on Sheet 3 is as obtained from borings made in the field and represents the best information available to the City of Wichita.

PILES: All piles shall be driven to the penetration shown unless in the opinion of the Engineer such penetration cannot be secured without injury to the pile. Piles shall be driven to a minimum computed bearing value, for steel bearing piles, of 65 tons per pile in piers, and 55 tons per pile in abutments; and for sheet steel piles, of 15 tons per pile.

PILE DRIVING: All piles shall be driven with a steam or diesel hammer; if a diesel hammer is used, sufficient hammer data shall be provided to permit rating by the Engineer before driving starts.

EXISTING STRUCTURE: The Contractor will remove the existing structure, consisting of a steel beam bridge on wood pile piers. All material to become the property of the Contractor, to be removed from the site.

FALSEWORK AND FORMING: Falsework under superstructure, including each sidewalk slab, shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength; but in no case shall the falsework be removed before 14 days after placing concrete. Parapet walls under handrails shall preferably, but not necessarily, be placed after falsework supporting the walk has been removed. Camber shall be provided in the amounts shown on the Dead-Load Camber Diagram.

CONCRETE: Class AAA Concrete shall be used in Bridge Abutments and Superstructure, including walk and in Dam Foundation Slab; Class A in Bridge Piers and in the Control Vault.

REINFORCING STEEL: All dimensions shown relative to reinforcing steel placement are to centerline of bars unless otherwise noted. All dimensions shown in bending diagrams are out to out of bars.

DECK TREATMENT: Bridge deck shall be cured with linseed oil emulsion, in accordance with the Specifications.

DESIGN:

Design Loading: H20-S16-44 A.A.S.H.O. Specifications (1965 Ed.)

Unit Stresses: fc = 1,600 p.s.i. Class AAA
fc = 1,200 p.s.i. Class A
fs = 20,000 p.s.i. (Reinf)
f'c = 4,000 p.s.i. Class AAA
f'c = 3,000 p.s.i. Class A

Pile Loading: 65 tons per pile in piers
55 tons per pile in abutments
15 tons per pile for sheet piles

As Built Jan, 1971 C.P.S.

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

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

GENERAL NOTES & SUMMARY OF QUANTITIES

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE December, 1965
SCALE —
DWG. NO. 89-E-7

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

+1.3% | -1.0%

400' V.C.

370'-6¼" End to End Wearing Surface

26'-5½"	33'-0"	42'-0"	42'-0"	42'-0"	42'-0"	42'-0"	42'-0"	42'-0"	33'-0"	26'-5½"
Sta. 6+41.74 ℄ W.S. El. 1286.19	Sta. 7+41.0 ℄ Pier #1 El. 1286.37	Sta. 8+14.0 ℄ Pier #2 El. 1286.60	Sta. 9+16.0 ℄ Pier #3 El. 1286.82	Sta. 9+58.0 ℄ Pier #4 El. 1286.96	Sta. 10+00 ℄ Pier #5 El. 1287.00	Sta. 10+42.0 ℄ Pier #6 El. 1286.96	Sta. 10+84.0 ℄ Pier #7 El. 1286.82	Sta. 11+26.0 ℄ Pier #8 El. 1286.60	Sta. 11+59.0 ℄ Pier #9 El. 1286.37	Sta. 11+85.19 ℄ W.S. El. 1286.19

Natural Ground Line

10 BP 42-40' Steel Piles (Typ.) (Vertical)

10 BP 42-36' Steel Piles (Typ.) (Battered)

12 BP 53 × # Steel Piles (Typ.) (Vertical)

Top of Shale

12 BP 53 × # Steel Piles (Typ.) (Vertical)

= See Sheet No. 7 for Steel Pile Lengths.

Top Sheet Piles @ El. 1284.25 See Sheet 3 for Details

El. 1286.50

2:1

Class I

Class II

El. 1277.0 Exc.

Boundary Plane

Design W.S. El. 1290.0

El. 1274.0

Top Concrete Base Slab

El. 1286.5

Min. Penetration

Max. Penetration

LEGEND

Note: All Pier Piles shall be 12 BP 53 Steel piles.

Steel Sheet Piling for Dam

Note: See Detail Sheets for all elevations.

1239.6 1240.3 1240.9 1243.7 1250.0 1247.4 1250.9 1243.1 175.00' Lt. Sta. 8+71.21 1249.4 1249.4 1233.2 1251.3 1248.7 1251.1 1248.2 1250.9 1248.3 1250.9 1248.7 1248.3 1246.7 1250.2 1247.9 1248.3 1238.6

ELEVATION

25'-33'-6 @ 42'-33'-25' CONTINUOUS REINFORCED CONCRETE SLAB SPANS 8°00' SKEW ∠T.

Scale 1"=15'

Exist. Traverse Line

P.C.C.

R=210'

P.C.C.

77.00' Lt. Sta. 8+51.31

R.R. Traverse Line

T.H. #1

1-3⅜"

25'-0" | 33'-0" | 42'-0" | 42'-0" | 42'-0" | 42'-0" | 42'-0" | 42'-0" | 33'-0" | 25'-0" | 1-3⅜"

370'-6¼" End to End of Wearing Surface

Sta. 7+73.81 ℄ Lincoln St. ∠ 39°-18'-11" (R.R. Traverse) ℄ 37°-23'-00" (R.R. Traverse)

Sta. 7+79.03 (Base Line) ∠ 39°-18'-11" (R.R. Traverse)

Sta. 8+14.74 E.W.S.

Sta. 8+16.00 ℄ Abut. #1

Temporary Island

Sta. 8+41.45 (℄ Lincoln St.) Sta. 8+41.00 ℄ Pier #1

P.C.C.

R=30'

R=40'

P.T.

Sta. 8+74.00 ℄ Pier #2

Sta. 9+16.00 ℄ Pier #3

Sta. 9+58.00 ℄ Pier #4

Sta. 10+00.00 ℄ Pier #5

Sta. 10+42.00 ℄ Pier #6

Sta. 10+84.00 ℄ Pier #7

Sta. 11+26.00 ℄ Pier #8

Sta. 11+59.00 ℄ Pier #9

℄ Abut. #2 Sta. 11+85.19 E.W.S.

Sta. 11+85.26 E.W.S.

11' Approach Slab

Name Plate

Control Vault

Base Line

Meter Box

Sta. 12+43.86 = "X" Cut in Pvmt

12' Approach Slab

Sta. 9+18.48 (℄ Lincoln St.) ∠ 39°-18'-11" (R.R. Traverse)

Sta. 9+79.95 (℄ Lincoln St.) ∠ 37°-23'-00" (R.R. Traverse)

Face Line (Bridge)

℄ Lincoln St.

Name Plate

R=30'

P.C.C.

R=150'

R=120' (Temporary)

89.03' Rt. Sta. 8+22.93

126.45' Rt. Sta. 9+15.76

℄ T.H. #3

℄ T.H. #5

℄ T.H. #4

℄ T.H. #2

BIG ARKANSAS

RIVER

104.68' Lt. Sta. 10+19.05

5'

3'

Curve Data

Δ = 3°51'06"

D = 5°00'

L = 77.03'

R = 1145.92'

T = 38.53'

E = 0.65'

PLAN

NOTE:

See Sheet 2A 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.P.S.

Received FEB 9 1971

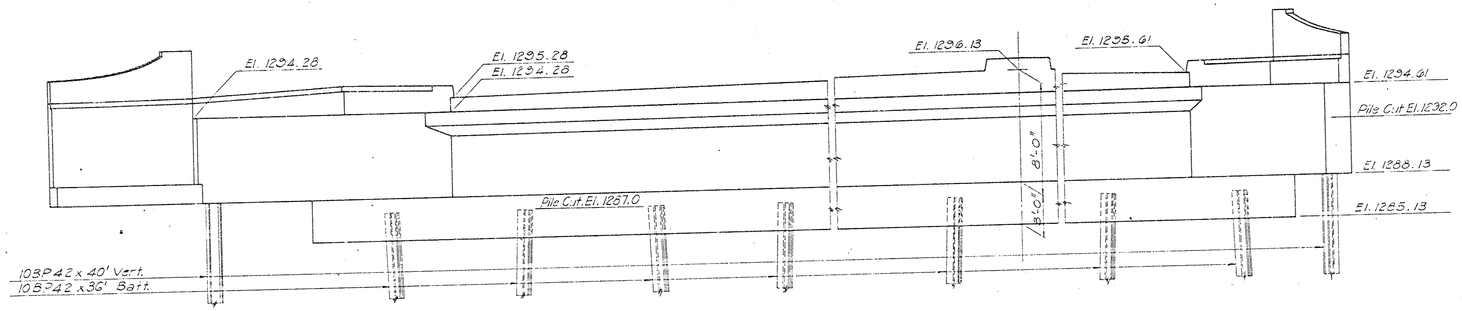
CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

BRIDGE LAYOUT

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

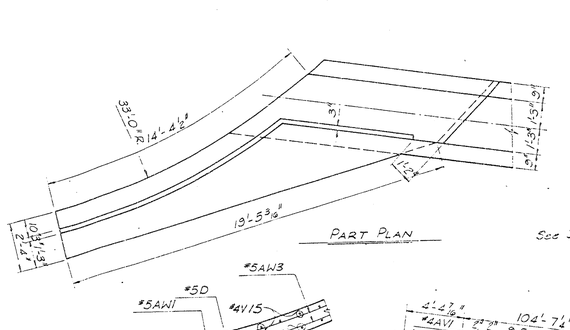
DATE December, 1968
SCALE 1"=15'
DWG. NO. 89-E-8



ELEVATION

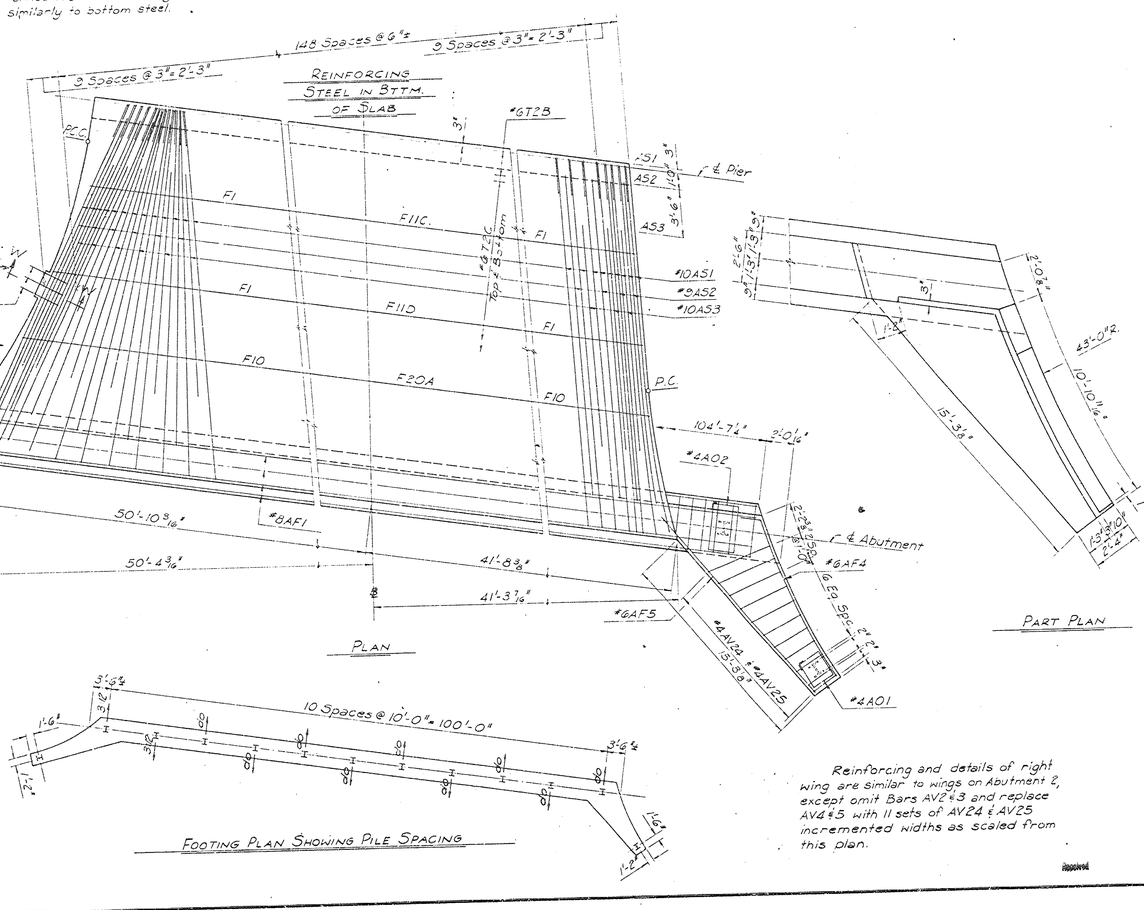
Backwall reinforcing identical to Abutment No. 2 except for number of bars.

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



PART PLAN

DETAIL OF JOINT



PLAN

PART PLAN

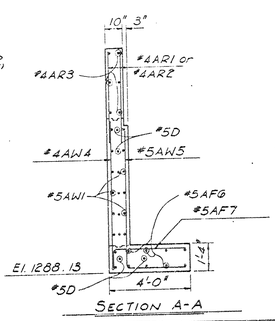
NOTE:

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.

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.



SECTION A-A

FOOTING PLAN SHOWING PILE SPACING

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.

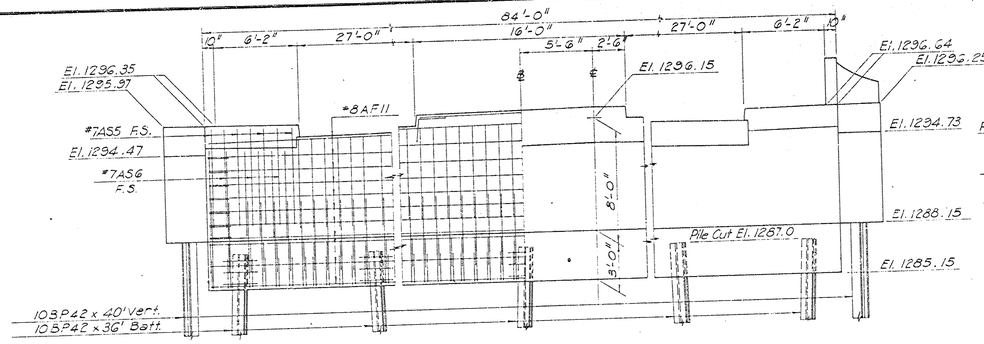
Approved FEB 9 1971

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

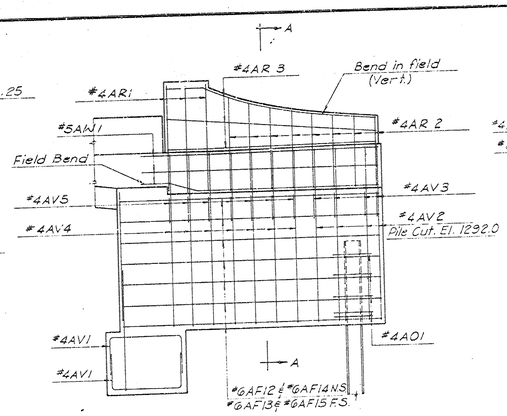
DETAILS, ABUTMENT 1

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

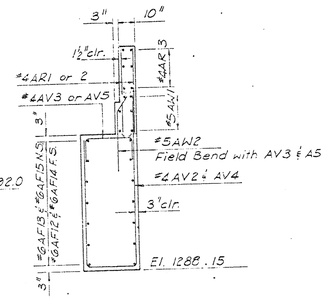
DATE December, 1968
SCALE _____
DWG. NO. 89-E-9



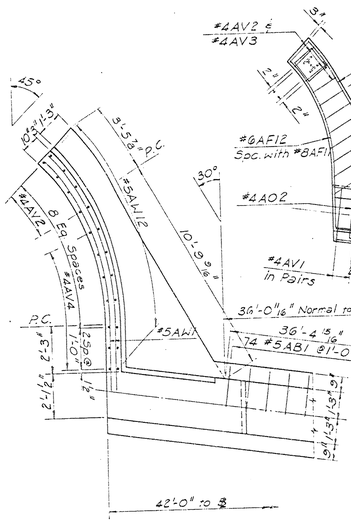
ELEVATION



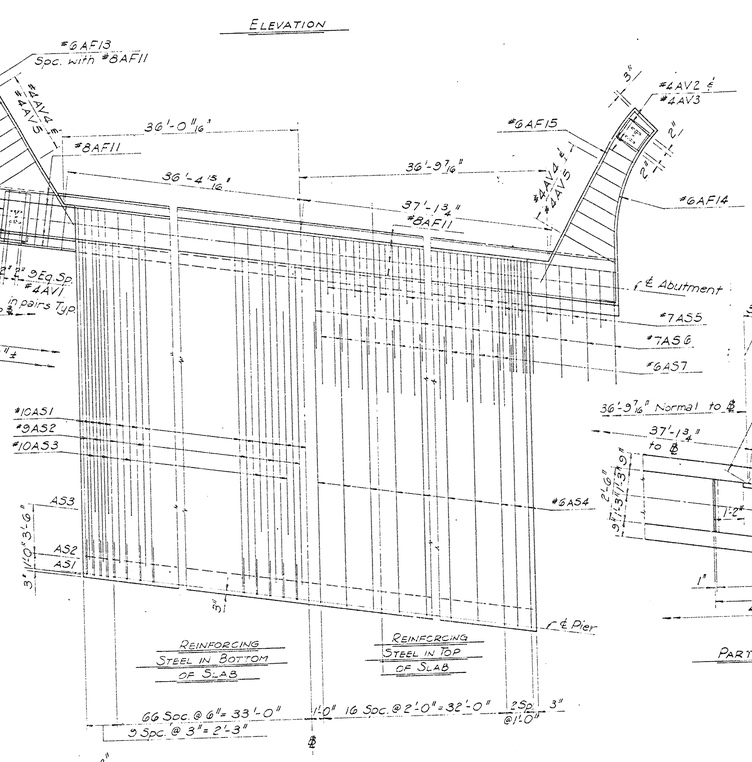
DEVELOPED VIEW OF WINGWALL



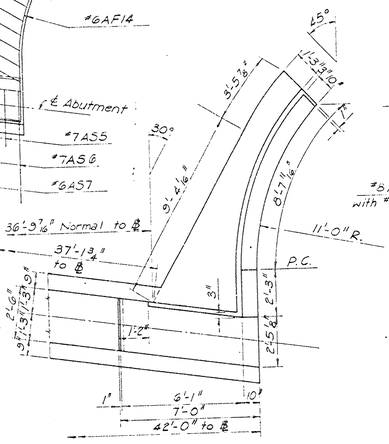
SECTION A-A



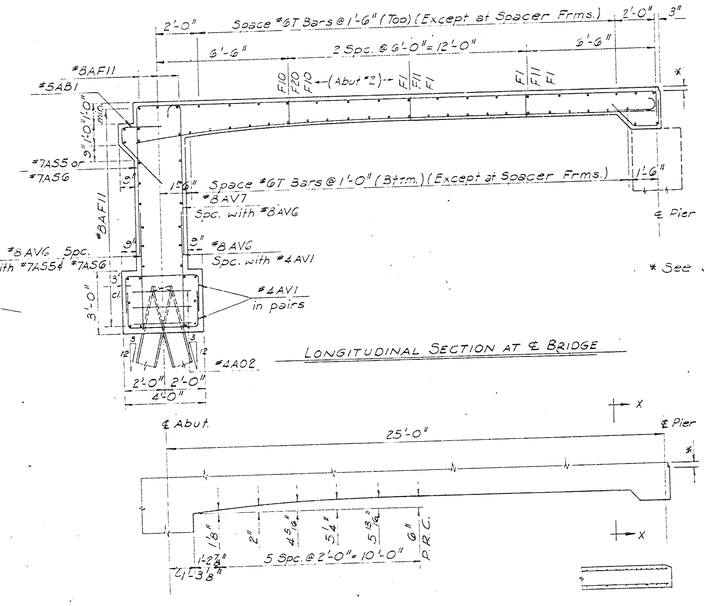
SECTION THRU WINGWALL



PLAN



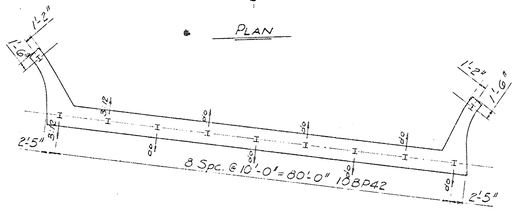
PART PLAN



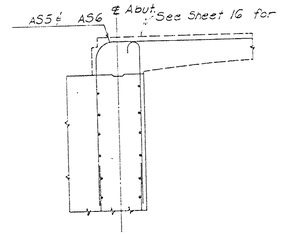
LONGITUDINAL SECTION AT ℄ BRIDGE

HAUNCH ORDINATES

PART SECTION X-X



FOOTING PLAN SHOWING PILE SPACING



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.F.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. 89-E-10

FEB 9 1971

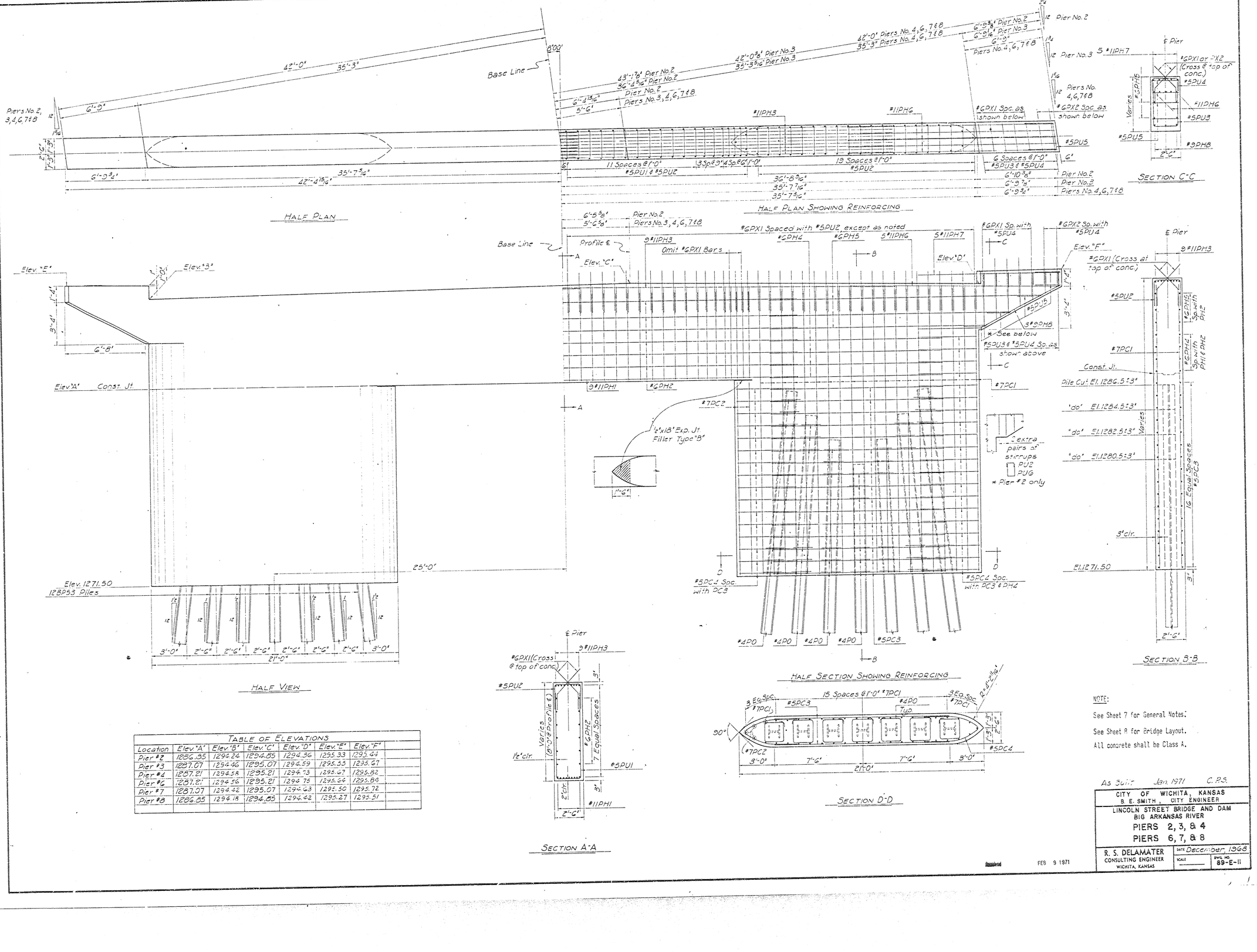


TABLE OF ELEVATIONS						
Location	Elev. "A"	Elev. "B"	Elev. "C"	Elev. "D"	Elev. "E"	Elev. "F"
Pier #2	1286.35	1294.24	1294.85	1294.36	1295.33	1295.44
Pier #3	1287.07	1294.46	1295.07	1294.59	1295.53	1295.67
Pier #4	1287.21	1294.58	1295.21	1294.73	1295.67	1295.82
Pier #6	1287.21	1294.56	1295.21	1294.75	1295.64	1295.80
Pier #7	1287.07	1294.42	1295.07	1294.63	1295.50	1295.72
Pier #8	1286.85	1294.18	1294.85	1294.42	1295.27	1295.51

NOTE:

See Sheet 7 for General Notes.

See Sheet 8 for Bridge Layout.

All concrete shall be Class A.

As Built Jan. 1971 C.P.S.

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

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER
PIERS 2, 3, & 4
PIERS 6, 7, & 8

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE December, 1968
SCALE
DWG. NO. 89-E-11

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HALF PLAN

HALF PLAN SHOWING REINFORCING

HALF VIEW

HALF SECTION SHOWING REINFORCING

SECTION C-C

SECTION E-E

PIER RECESS AND BOLT LOCATION
(West face thus; east face, opposite hand)

SECTION A-A

SECTION D-D

SECTION B-B

NOTE: Dimensions are on face of Pier.

NOTE:

Refer to Sheet 11 for typical pier details; those details not otherwise indicated on this sheet are intended to be similar to those typical details.

See piping layout for location of connections to air piping.

All concrete shall be Class A.

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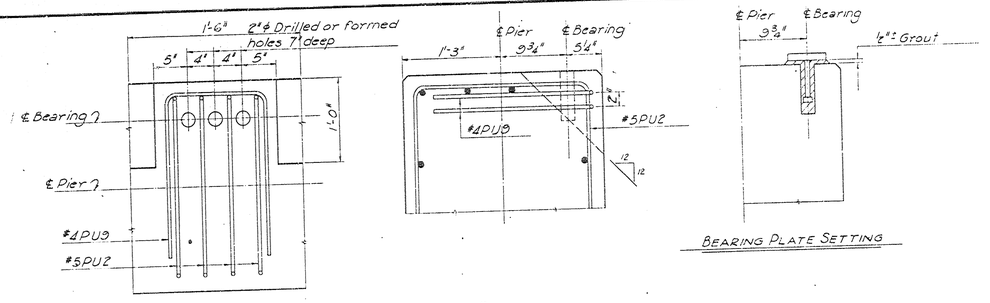
CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

DETAILS, PIER 5

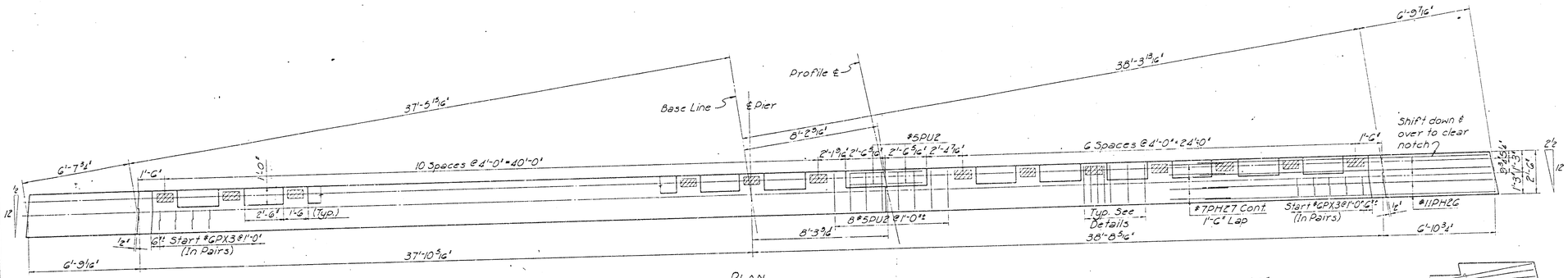
R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE December, 1968
SCALE
DWG NO. 89-E-12

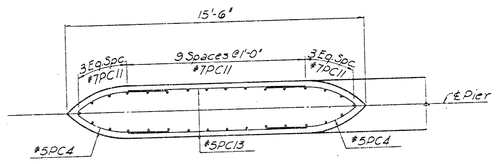


TYPICAL DETAIL AT BEARING PADS

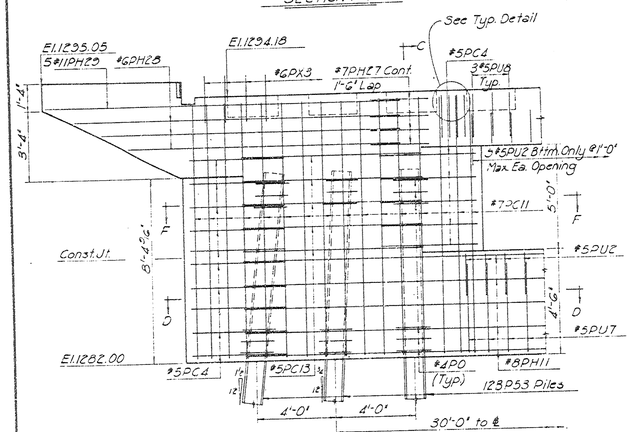
BEARING PLATE SETTING

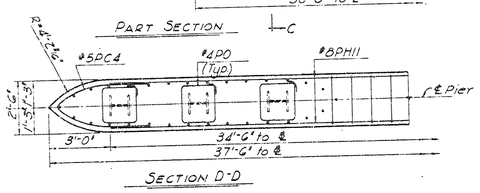


PLAN

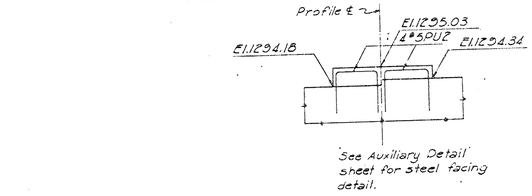


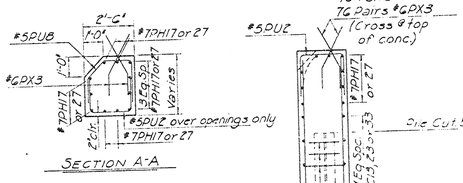
SECTION F-F



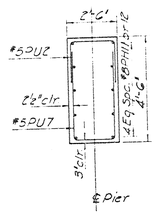


SECTION D-D

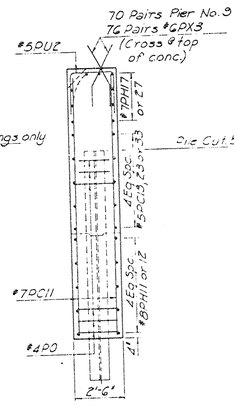




SECTION A-A

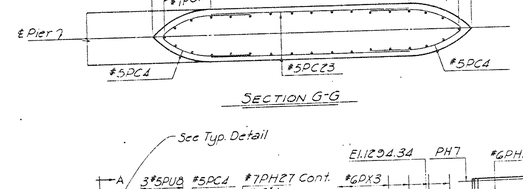


SECTION B-B



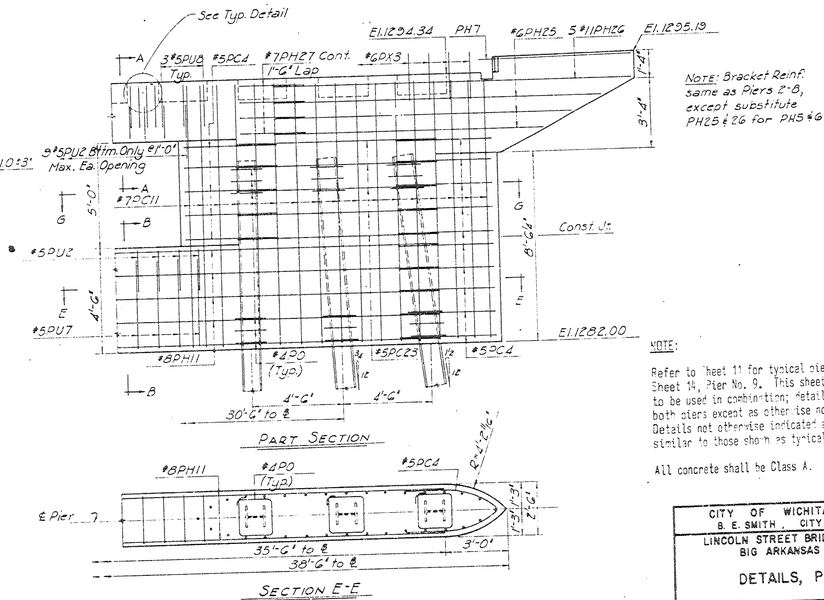
SECTION C-C

NOTE: Intermediate columns same as Pier No. 9



SECTION G-G





PART SECTION

SECTION E-E

NOTE:

Refer to Sheet 11 for typical pier details, and to Sheet 14, Pier No. 9. This sheet and Sheet 14 are to be used in combination; details are identical on both piers except as otherwise noted or indicated. Details not otherwise indicated are intended to be similar to those shown as typical on Sheet 11.

All concrete shall be Class A.

FEB 9 1971

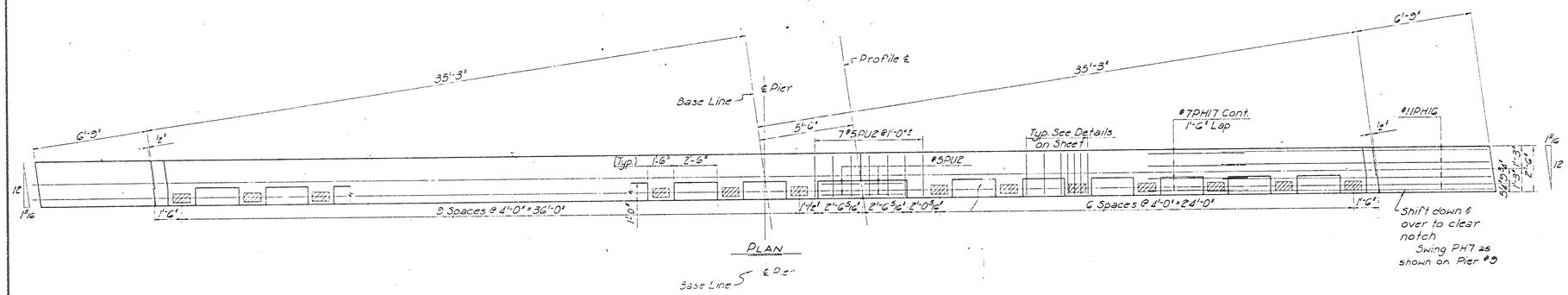
CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

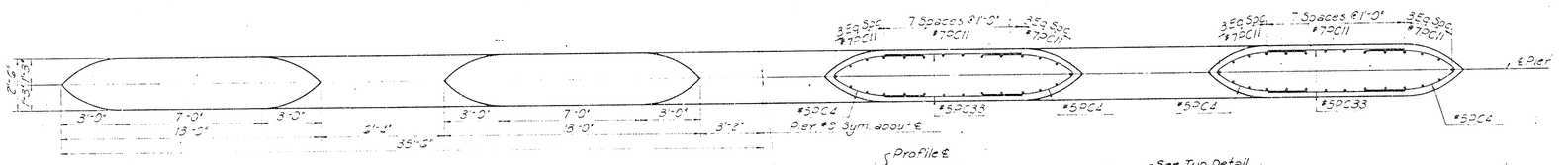
LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

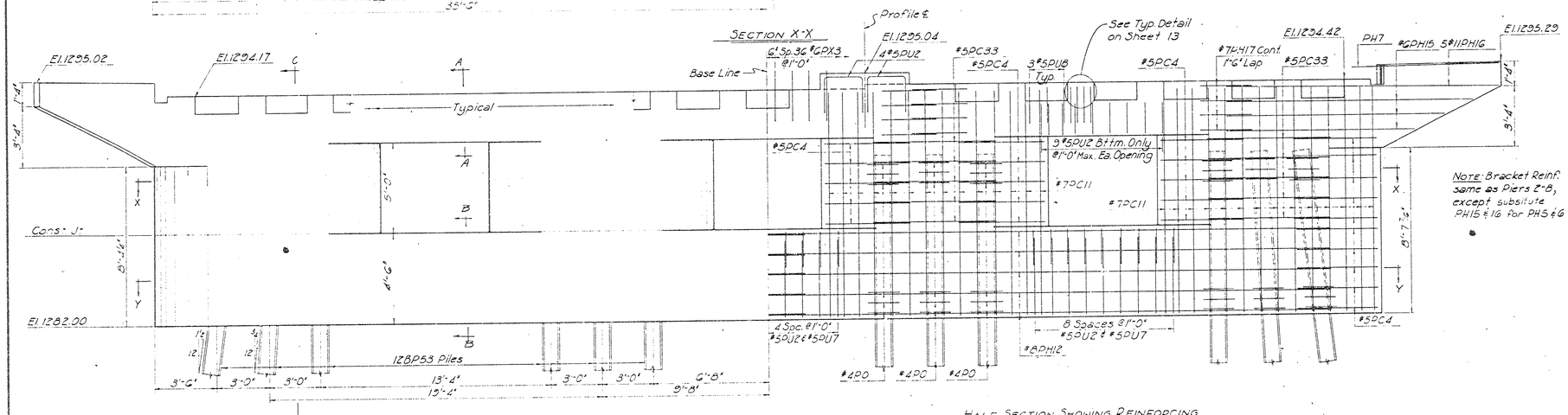
DETAILS, PIER 1

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE December, 1968
SCALE
DWG. NO. 89-E-13







Note: Bracket Reinf. same as Piers 2-8, except substitute PH15 & 16 for PH5 & 6

NOTE:

Refer to Sheet 11 for typical pier details, and to Sheet 13, Pier No. 1. This sheet and Sheet 13 are to be used in combination; details are identical on both piers except as otherwise noted or indicated. Details not otherwise indicated are intended to be similar to those shown as typical on Sheet 11.

All concrete shall be Class A.

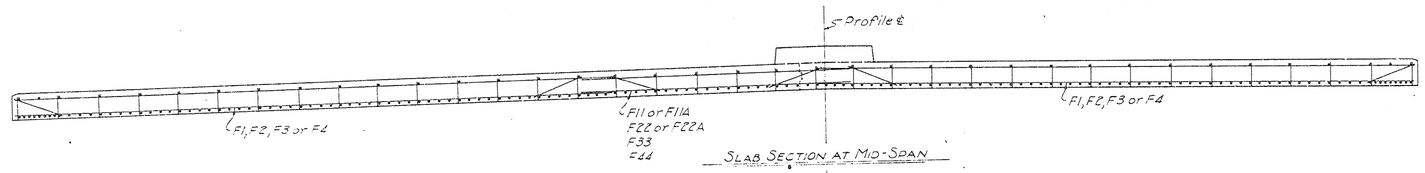
FEB 9 1971

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

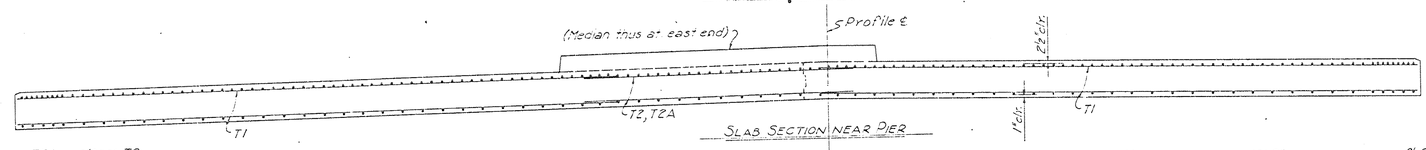
DETAILS, PIER 9

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA KANSAS

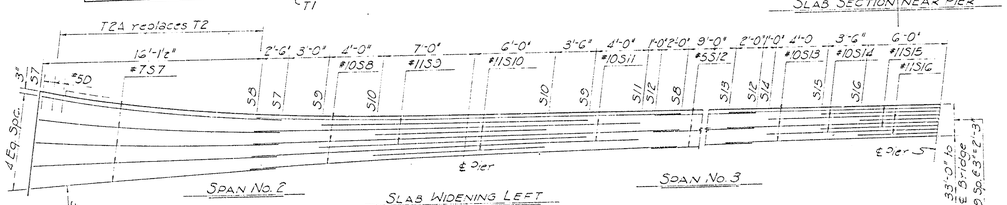
DATE [illegible], 1968
SCALE
DWG NO 89-E-14

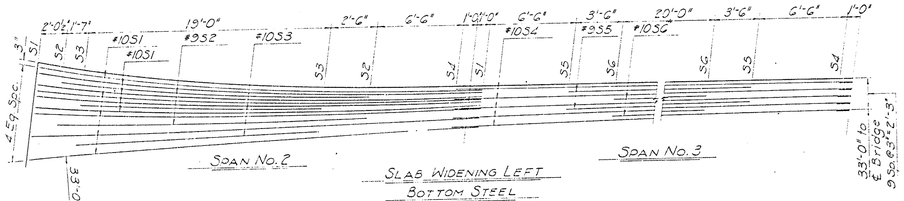


SLAB SECTION AT MID-SPAN



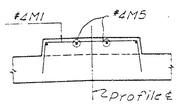
SLAB SECTION NEAR PIER



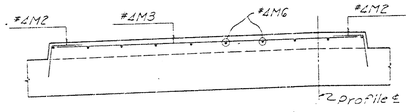




SECTION W-W



SECTION A-A

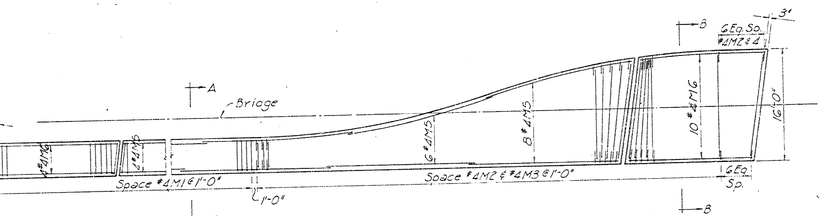


SECTION B-B

REINFORCING STEEL IN TOP OF SLAB

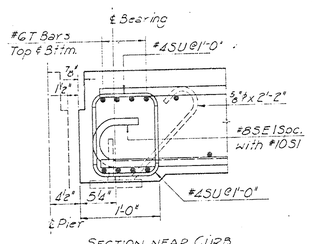
REINFORCING STEEL IN BTTM. OF SLAB

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

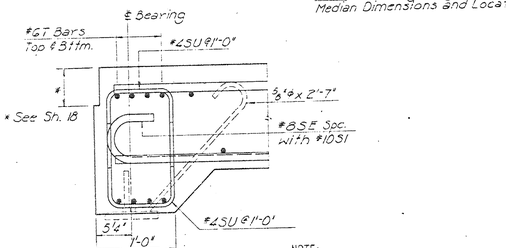


PART MEDIAN PLAN

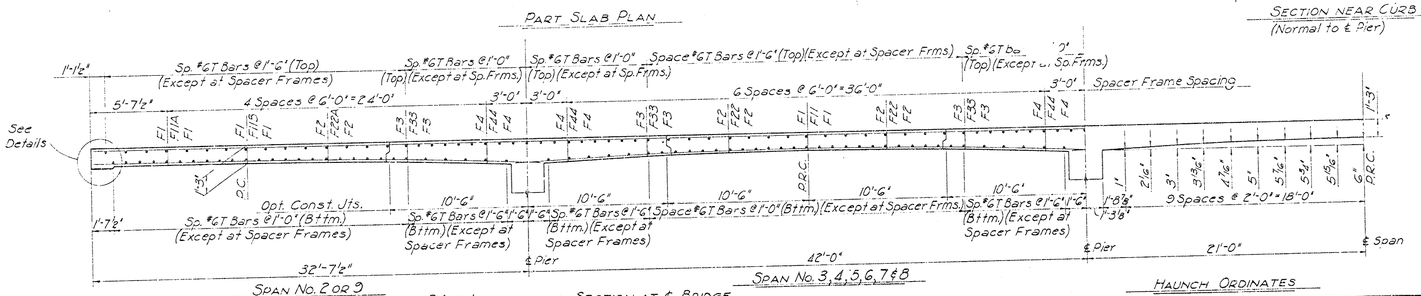
NOTE: See Bridge Layout for Median Dimensions and Location.



SECTION NEAR CURB
(Normal to ℄ Pier)



SECTION NEAR MEDIAN
(Normal to ℄ Pier)



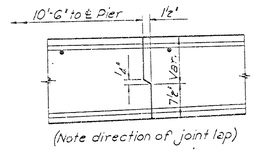
PART SLAB PLAN

SPAN NO. 2 OR 9

PART LONGITUDINAL SECTION AT ℄ BRIDGE

SPAN NO. 3, 4, 5, 6, 7 & 8

HAUNCH ORDINATES



(Note direction of joint lap)

CONSTRUCTION JOINT

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.

Approved FEB 9 1971

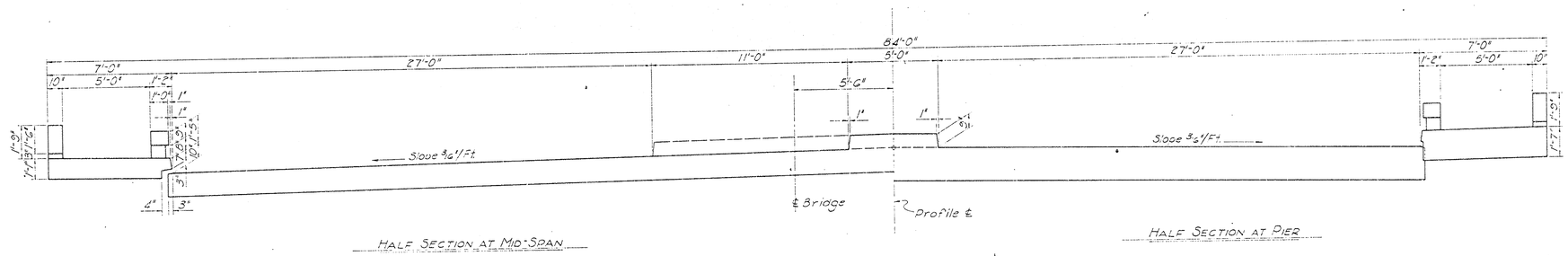
CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

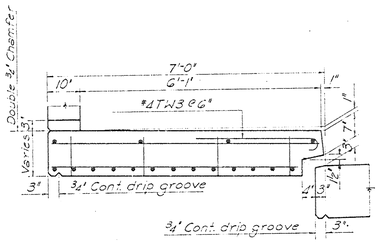
SUPERSTRUCTURE DETAILS

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CONSULTING ENGINEER
WICHITA, KANSAS

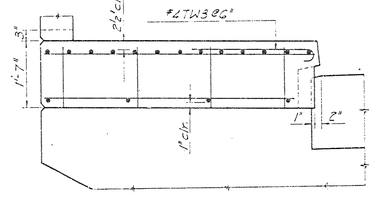
DATE December, 1968
SCALE
DWG. NO. 89-E-15



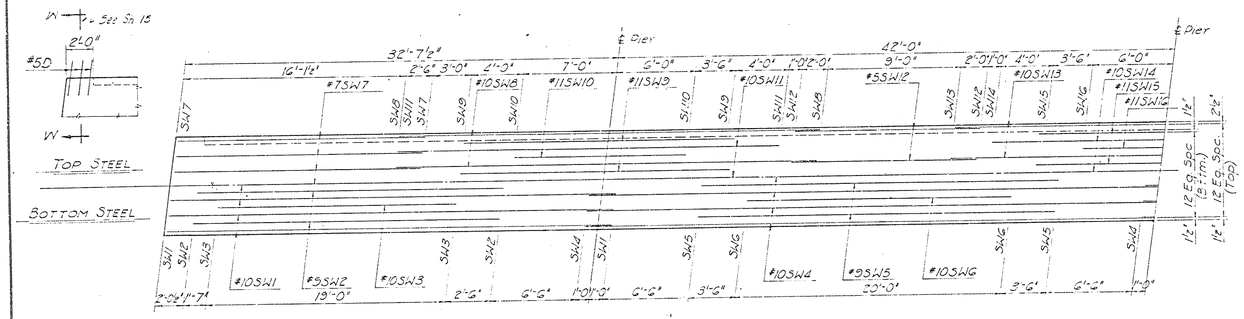
HALF SECTION AT MID-SPAN



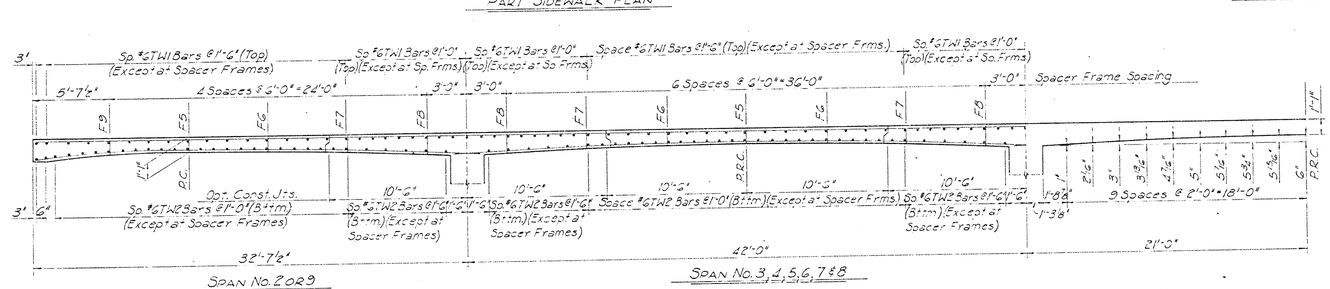
HALF SECTION AT PIER



SECTION AT PIER



PART SIDEWALK PLAN

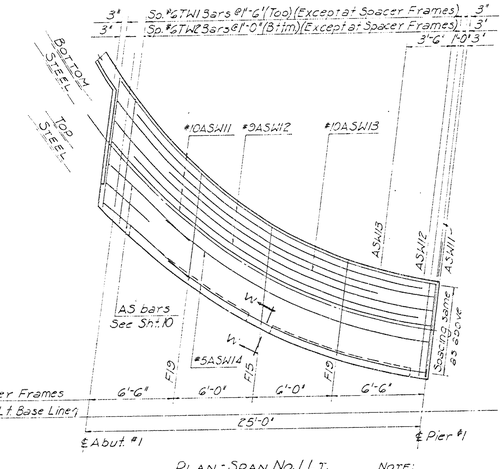


SPAN No. 2 & 9

SPAN No. 3, 4, 5, 6, 7 & 8

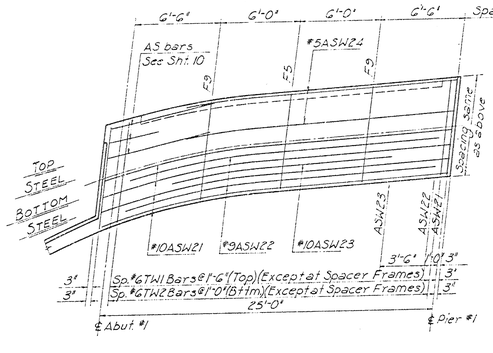
PART LONGITUDINAL SECTION AT ℄ SIDEWALK

HAUNCH ORDINATES



PLAN - SPAN No. 1 LT.

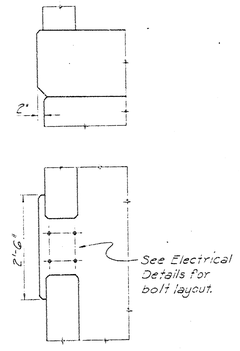
NOTE:
Section A-A same as at piers.



PLAN - SPAN No. 1 RT.

NOTE: In walks for Abut. #2 use ASW1, 2, 3 & 4 and Frames F5 & F3 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.

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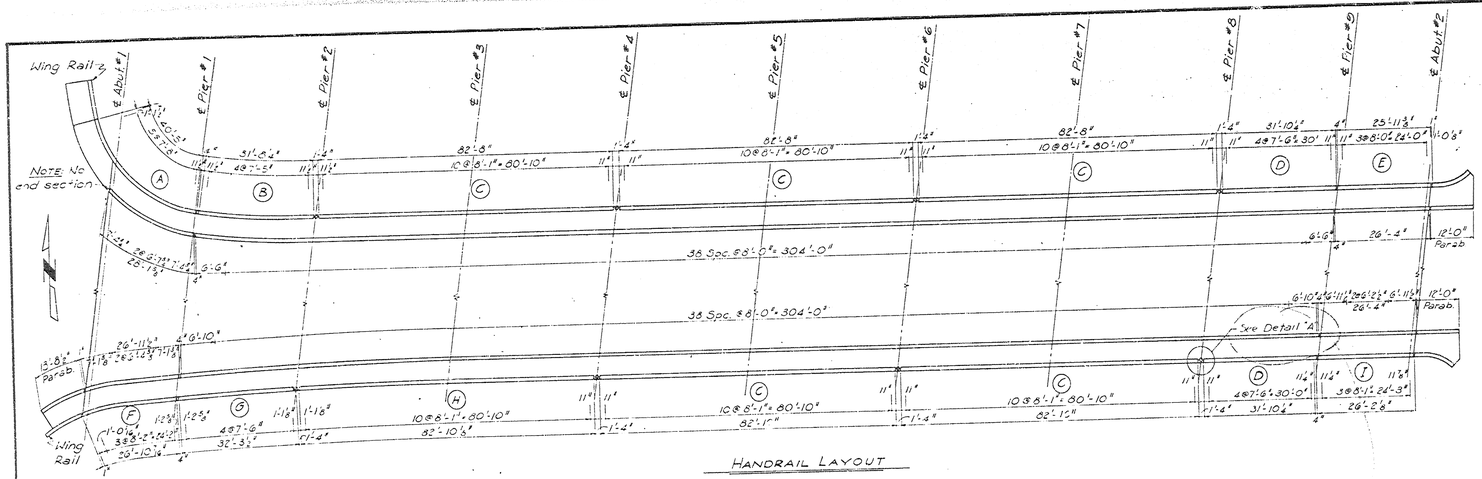
CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

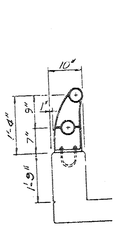
SIDEWALK DETAILS

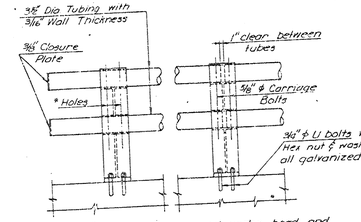
R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE December, 1969
SCALE ———
DWG. NO. 89-E-16

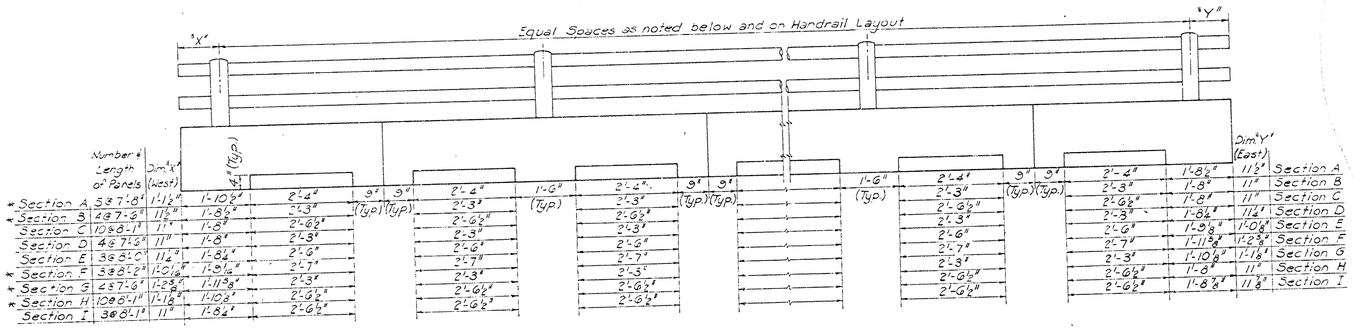


HANDRAIL LAYOUT





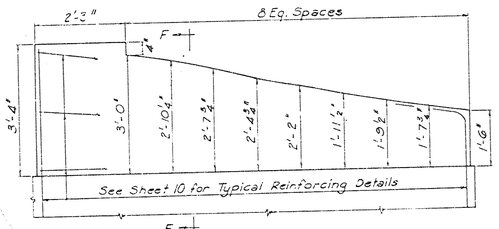
*Holes: 1 1/16" Square holes in post under head and 1 1/16" round holes under nuts for 5/8" ϕ x 5½" carriage bolts with hex nuts.



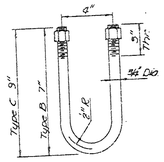
Number & Length of Panels	Dim "X" (West)										Dim "Y" (East)	
* Section A 537'-8"	1'-10½"	2'-4"	9" (Typ)	9" (Typ)	2'-4"	1'-6" (Typ)	2'-4"	9" (Typ)	9" (Typ)	1'-6" (Typ)	2'-4"	11½" Section A
* Section B 487'-6"	11⅝"	2'-3"			2'-3"		2'-3"				2'-3"	11" Section B
Section C 1058'-1"	1'-8"	2'-6½"			2'-6½"		2'-6½"				2'-6½"	11" Section C
Section D 487'-6"	11"	2'-3"			2'-3"		2'-3"				2'-3"	11¼" Section D
Section E 388'-0"	11¼"	2'-6"			2'-6"		2'-6"				2'-6"	11⅝" Section E
* Section F 388'-0"	1'-0⅛"	2'-7"			2'-7"		2'-7"				2'-7"	1'-0⅛" Section F
* Section G 487'-6"	1'-2⅝"	2'-3"			2'-3"		2'-3"				2'-3"	1'-1⅝" Section G
* Section H 1088'-1"	1'-1⅞"	2'-6½"			2'-6½"		2'-6½"				2'-6½"	11" Section H
Section I 368'-1"	11"	1'-8½"			2'-6½"		2'-6½"				2'-6½"	11⅛" Section I

*NOTE: Curved rail sections: see Construction Layout

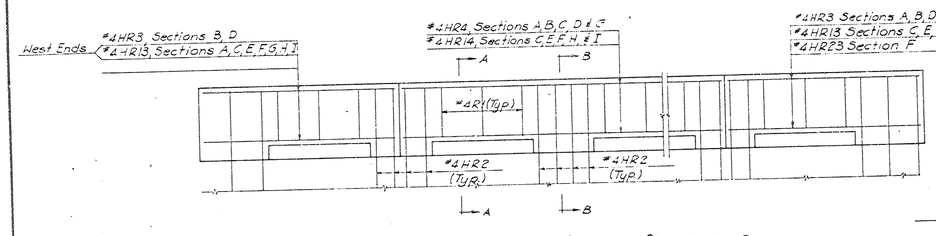
ELEVATION



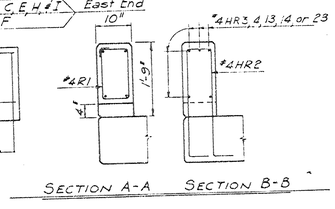
F ABUTMENT RAIL DETAIL



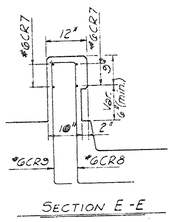
GALVANIZED U-BOLTS DETAILS



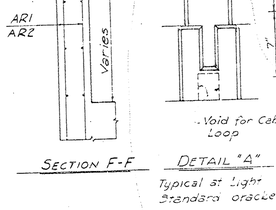
PART SIDEWALK RAIL ELEVATION SHOWING REINFORCING



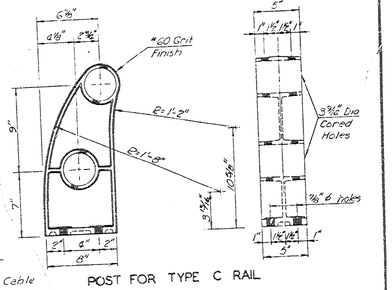
SECTION A-A SECTION B-B



SECTION E-E

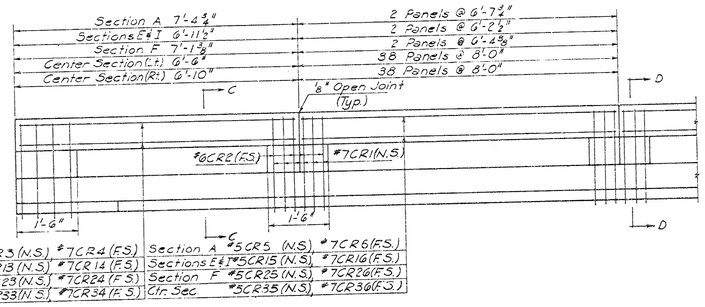


SECTION F-F DETAIL "A" Typical st. light standard brackets



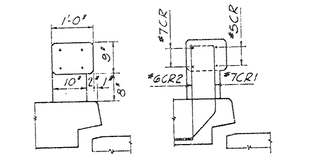
POST FOR TYPE C RAIL

ALUMINUM HANDRAIL DETAILS TYPE C

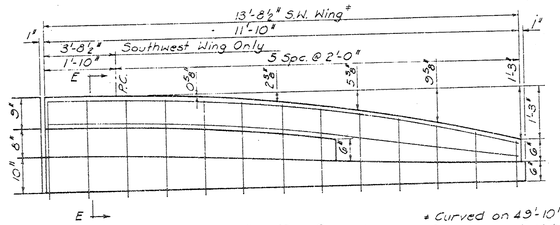


Section A	#5CR3 (N.S.)	#7CR4 (F.S.)	Section A	#5CR5 (N.S.)	#7CR6 (F.S.)
Sections E & I	#5CR13 (N.S.)	#7CR14 (F.S.)	Sections E & I	#5CR15 (N.S.)	#7CR16 (F.S.)
Section F	#5CR23 (N.S.)	#7CR24 (F.S.)	Section F	#5CR25 (N.S.)	#7CR26 (F.S.)
Ctr. Sec.	#5CR33 (N.S.)	#7CR34 (F.S.)	Ctr. Sec.	#5CR35 (N.S.)	#7CR36 (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 of intermediate posts to be 11/16" diameter. At other posts 1 1/16" slotted holes centered on bolts @ 60°F.
All rail post flanges and webs shall have a minimum thickness of 9/16" with 3° draft. Nominal minimum thickness of base shall be 3/4" with minimum of 3/8" thickness.
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

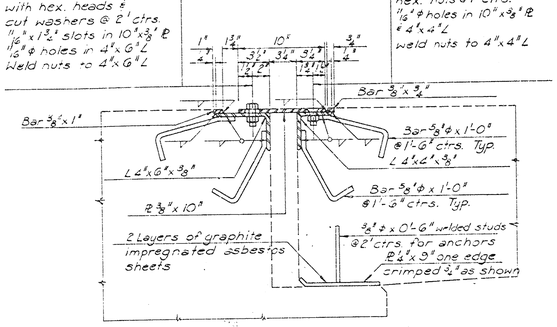
R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

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

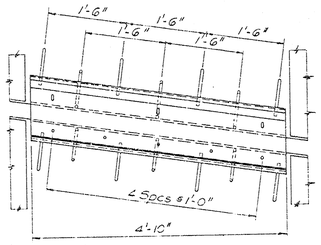
Approved FEB 9 1971

Temporary erection bolts $\frac{5}{8}$"x 1½" Mach. Bolts with hex. heads ℄ cut washers @ 2" ctrs. $\frac{11}{16}$"x 1$\frac{3}{4}$" slots in 10"x$\frac{3}{8}$" ℙ $\frac{13}{16}$"ϕ holes in 4"x 6"L Weld nuts to 4"x 6"L

$\frac{5}{8}$"x1" Countersunk Mach. Bolts with hex. nuts @ 1' ctrs. $\frac{11}{16}$"ϕ holes in 10"x$\frac{3}{8}$" ℙ & 4"x 4"L weld nuts to 4"x 4"L



SECTION THRU SIDEWALK EXPANSION DEVICE

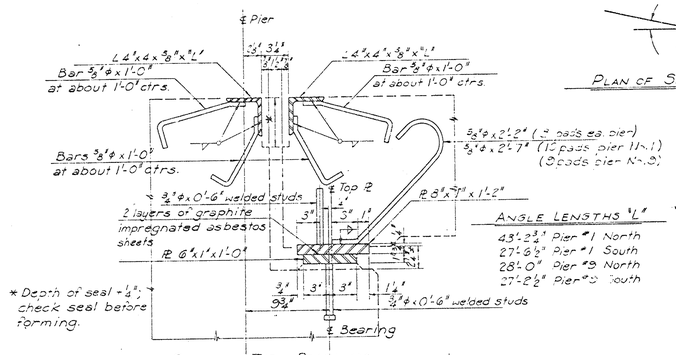


8°00' Rt. Skew Two thus at Pier #9

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

11°-5½' Rt. Skew One thus at Pier #1 (South)

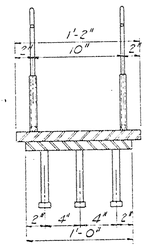
PLAN OF SIDEWALK EXPANSION DEVICES



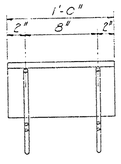
SECTION THRU ROADWAY EXPANSION DEVICE

ANGLE LENGTHS "L"

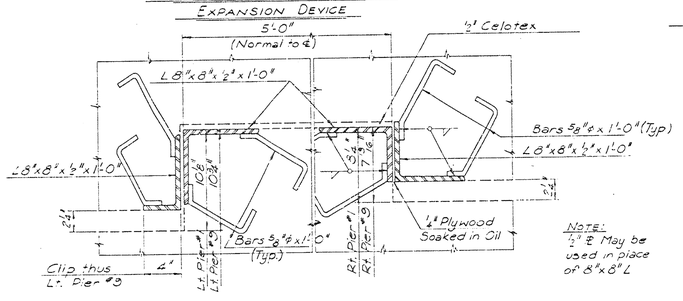
43'-2½" Pier #1 North
27'-6½" Pier #1 South
28'-0" Pier #9 North
27'-2½" Pier #9 South



FRONT VIEW

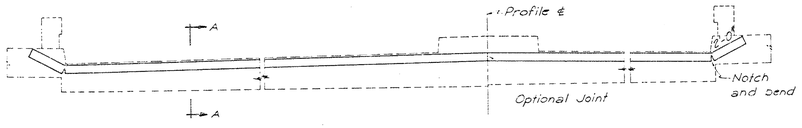


SIDE VIEW

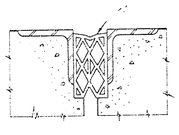


NOTE: ½" ℙ May be used in place of 8"x8"L

SECTION THRU KEY

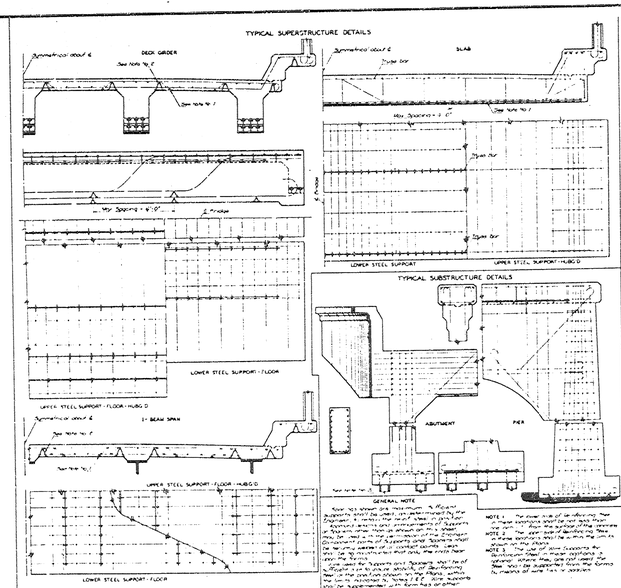


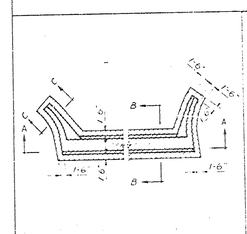
ROADWAY SECTION

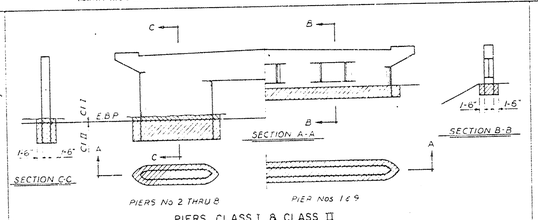


5" Acme Structural Joint Seal B-613 Install with Acme "E.P." Prima-Lub adhesive.

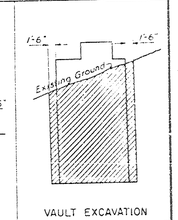
SECTION A-A







PIERS, CLASS I & CLASS II

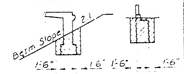


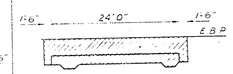
VAULT EXCAVATION



SECTION A-A

ABUTMENTS, CLASS I





SLAB EXCAVATION

NOTE: All bridge, dam foundation and vault excavation shall be computed on the basis of cross-hatched areas and boundary lines as indicated.

LIMITS OF EXCAVATION

NOTE:

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

See Sheet 7 for General Notes.

Received FEB 9 1971

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

LINCOLN STREET CRIDGE AND DAM
BIG ARKANSAS RIVER

AUXILIARY DETAILS

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE December, 1968
SCALE ———
DWG. NO. 89-E-18

ABUTMENT NO. 1

STRAIGHT BARS

Mark	No.Req.	Size	Length
AF1	90	8	37'-0"
AF3	7	8	24'-0"
AF5	7	6	18'-0"
AF6	22	5	10'-6"
AR1	12	4	4'-8"
AR2	32	4	4'-4"
AR3	12	4	10'-8"
AS1	83	10	26'-0"
AS2	41	9	23'-0"
AS3	41	10	16'-0"
AS4	42	6	20'-0"
AW1	6	5	12'-0"
AW2	26	5	4'-0"
AW3	6	5	13'-0"
AW4	12	4	7'-0"
AV6	210	8	6'-6"
D	11	5	2'-6"
M5	4	4	26'-0"
T2C	31	6	*
T1	72	6	30'-0"
T2B	5	6	20'-6"
TW1	32	6	6'-9"
TW2	48	6	6'-3"

BENT BARS (CONT.)

Mark	No.Req.	Size	Length
ASW11	7	10	28'-0"
ASW12	4	9	24'-6"
ASW13	2	10	18'-0"
ASW14	4	5	21'-0"
ASW21	7	10	26'-6"
ASW22	4	9	23'-6"
ASW23	2	10	16'-6"
ASW24	4	5	20'-6"

BENT BARS

Mark	No.Req.	Size	Length
AF2	7	6	16'-0"
AF4	7	6	14'-8"
AF7	12	5	4'-6"
AB1	93	5	5'-6"
AO1	10	4	8'-8"
AO2	33	4	11'-6"
AS5	47	7	11'-6"
AS6	50	7	15'-6"
AS7	82	6	15'-0"
AW5	12	5	10'-0"
AV1	210	4	7'-0"
AV7	105	8	8'-0"
AV14	15	4	*
AV15	15	4	*
AV24	11	4	*
AV25	11	4	*
M1	27	4	7'-9"
SE1	76	8	4'-0"
SE2	76	5	3'-6"
F1	4	*	*
F5	1	*	*
F9	2	*	*
F10	2	*	*
F11C	1	*	*
F11D	1	*	*
F15	1	*	*
F19	2	*	*
F20A	1	*	*
TW3	104	4	3'-5"

ABUTMENT NO. 2

STRAIGHT BARS

Mark	No.Req.	Size	Length
AF11	90	8	30'-0"
AR1	12	4	4'-8"
AR2	32	4	4'-4"
AR3	12	4	10'-8"
AW1	12	5	12'-0"
AW2	22	5	4'-0"
T1	72	6	30'-0"
T2	36	6	14'-0"
AV6	173	8	6'-6"
AS1	75	10	26'-0"
AS2	38	9	23'-0"
AS3	36	10	16'-0"
AS4	38	6	20'-0"
M3	20	4	*
M4	7	4	15'-6"
M6	10	4	26'-0"
TW1	39	6	6'-9"
TW2	54	6	6'-3"
ASW1	14	10	26'-0"
ASW2	8	9	23'-0"
ASW3	4	10	17'-0"
ASW4	8	5	21'-0"

BENT BARS

Mark	No.Req.	Size	Length
AB1	74	5	5'-6"
AF12	7	6	15'-0"
AF13	7	6	15'-3"
AF14	7	6	15'-0"
AF15	7	6	14'-9"
AV1	168	4	7'-0"
AV2	8	4	16'-0"
AV3	8	4	4'-6"
AV4	14	4	*
AV5	14	4	*
AV7	84	8	8'-0"
AS5	43	7	11'-6"
AS6	46	7	15'-6"
AS7	74	6	15'-0"
M2	54	4	3'-0"
SE1	71	8	4'-0"
SE2	71	5	3'-6"
TW3	104	4	3'-5"
AO1	10	4	8'-8"
AO2	27	4	11'-6"
F1	4	*	*
F11	2	*	*
F10	2	*	*
F20	1	*	*
F5	2	*	*
F9	4	*	*

* See Bending Diagrams

PIERS 2, 3, 4, 5, 7, 8 (Total for six Piers)

STRAIGHT BARS

Mark	No.Req.	Size	Length
PC1	468	7	22'-0"
PC2	36	7	15'-3"
PC3	384	5	15'-0"
PH1	54	11	40'-0"
PH2	72	6	40'-0"
PH3	108	11	30'-0"
PH4	96	6	15'-0"
PH5	72	6	*
PH6	60	11	18'-0"
PH7	60	11	12'-0"
PH8	36	9	13'-0"

BENT BARS

Mark	No.Req.	Size	Length
PC4	432	5	10'-8"
PO	504	4	7'-2"
PU1	228	5	16'-3"
PU2	452	5	6'-3"
PU3	84	5	*
PU4	84	5	4'-7"
PU5	50	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

STRAIGHT BARS

Mark	No.Req.	Size	Length
PC1	78	7	22'-0"
PC2	64	7	15'-6"
PC3	12	5	15'-9"
PC5	52	5	18'-0"
PH1	9	11	44'-0"
PH2	12	6	40'-0"
PH3	10	11	30'-0"
PH4	16	6	15'-0"
PH5	12	6	*
PH6	10	11	18'-0"
PH7	10	11	12'-0"
PH8	6	9	13'-0"
PH9	24	5	40'-0"

BENT BARS

Mark	No.Req.	Size	Length
PC4	40	5	10'-8"
PO	84	4	7'-2"
PU1	32	5	16'-3"
PU2	72	5	6'-3"
PU3	14	5	*
PU4	14	5	4'-7"
PU5	10	5	6'-3"
PU6	6	5	8'-3"
PX1	164	6	4'-3"
PX2	8	6	3'-3"

PIER NO. 1

STRAIGHT BARS

Mark	No.Req.	Size	Length
PC11	114	7	12'-0"
PC13	10	5	9'-0"
PC23	10	5	10'-0"
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"
PH25	6	6	*
PH26	5	11	19'-0"
PH28	6	6	*
PH29	5	11	18'-0"

BENT BARS

Mark	No.Req.	Size	Length
PC4	50	5	10'-8"
PO	72	4	7'-8"
PU2	138	5	6'-3"
PU3	14	5	*
PU4	14	5	4'-7"
PU5	10	5	6'-3"
PU7	27	5	10'-9"
PU8	48	5	5'-6"
PU9	36	4	5'-10"
PX3	172	6	3'-3"
PX4	8	6	2'-9"

PIER NO. 9

STRAIGHT BARS

Mark	No.Req.	Size	Length
PC11	104	7	12'-0"
PC33	40	5	7'-0"
PH7	10	11	12'-0"
PH8	6	9	13'-0"
PH12	20	8	34'-0"
PH15	12	6	*
PH16	10	11	16'-0"
PH17	33	7	20'-0"

BENT BARS

Mark	No.Req.	Size	Length
PCA	50	5	10'-8"
PO	72	4	7'-8"
PU2	133	5	6'-3"
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	2'-9"

* See Bending Diagrams

SUPERSTRUCTURE

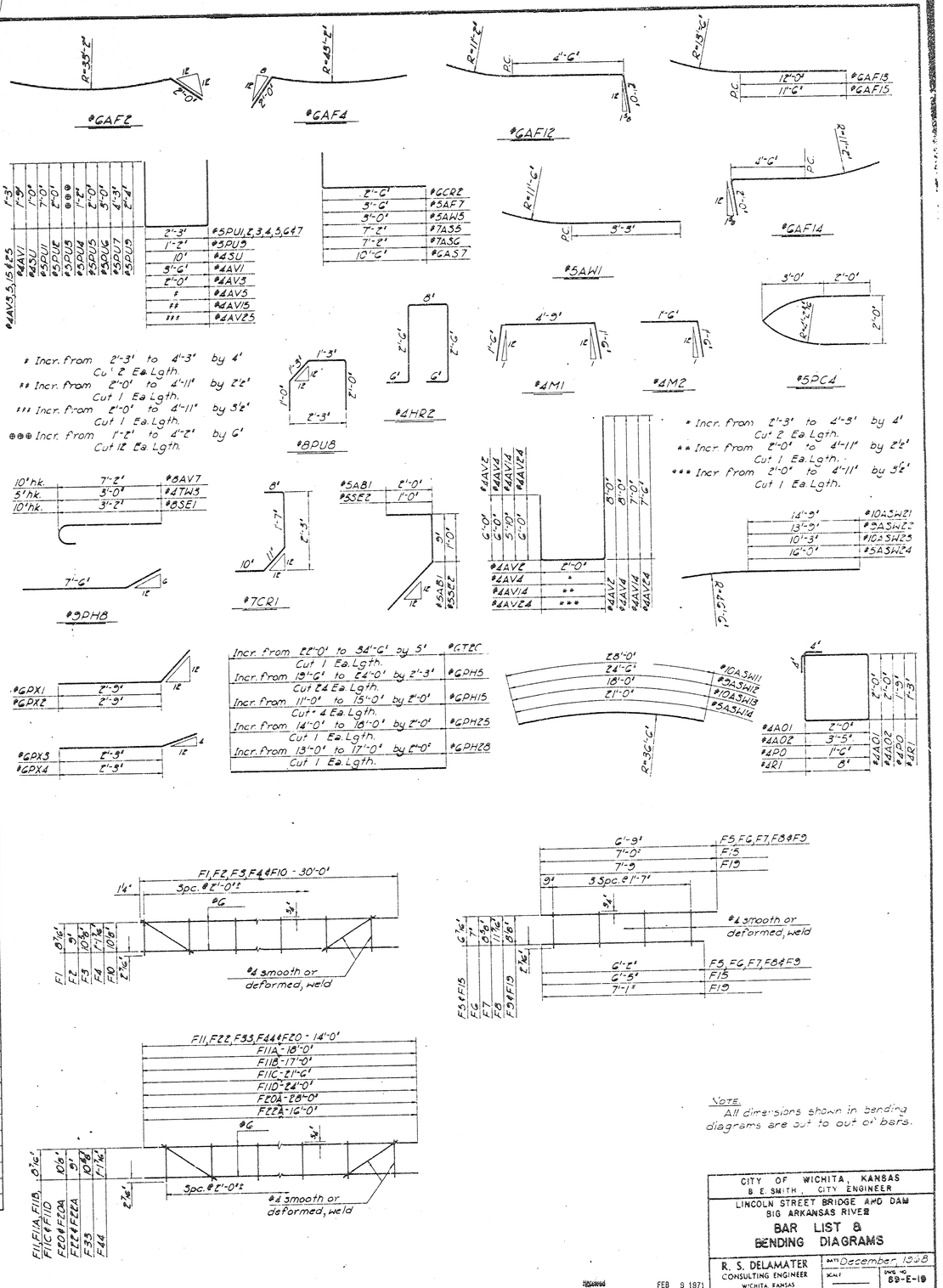
STRAIGHT BARS

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"
T2	326	6	14'-0"
T2A	105	6	20'-0"
D	12	5	2'-6"
M3	76	4	*
M5	50	4	30'-0"
TW1	406	6	6'-9"
TW2	436	6	6'-3"
CR3	8	5	7'-2"
CR4	8	7	7'-2"
CR5	8	5	6'-5"
CR6	8	7	6'-5"
CR13	16	5	6'-9"
CR14	16	7	6'-9"
CR15	16	5	6'-0"
CR16	16	7	6'-0"
CR23	16	5	6'-11"
CR24	8	7	6'-11"
CR25	8	5	6'-2"
CR26	8	7	6'-2"
CR33	8	5	6'-4"
CR34	16	7	6'-4"
CR35	152	5	7'-10"
CR36	152	7	7'-10"
HR3	40	4	4'-6"
HR4	80	4	7'-4"
HR13	95	4	4'-9"
HR14	300	4	7'-10"
HR23	5	4	5'-1"

BENT BARS

Mark	No.Req.	Size	Length
R1	543	4	4'-6"
SE1	154	8	5'-0"
SU	310	4	2'-10"
M1	243	4	7'-9"
M2	152	4	3'-0"
TW3	1272	4	3'-5"
CR1	588	7	4'-0"
CR2	408	6	3'-0"
F1	20	*	*
F2	28	*	*
F3	28	*	*
F4	28	*	*
F5	16	*	*
F6	28	*	*
F7	28	*	*
F8	28	*	*
F9	4	*	*
F11	8	*	*
F11A	1	*	*
F11B	1	*	*
F22	13	*	*
F22A	1	*	*
F33	14	*	*
F44	14	*	*
HR2	748	4	6'-8"

* 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

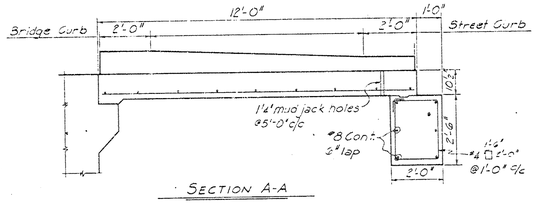
LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

BAR LIST & BENDING DIAGRAMS

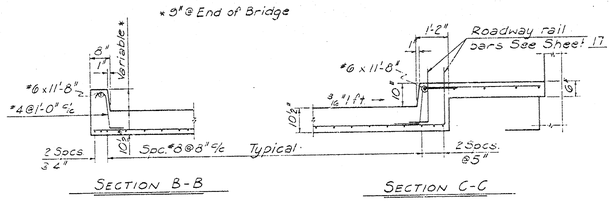
R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

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

Received FEB 9 1971

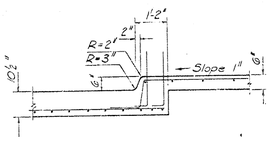


SECTION A-A

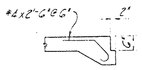


SECTION B-B

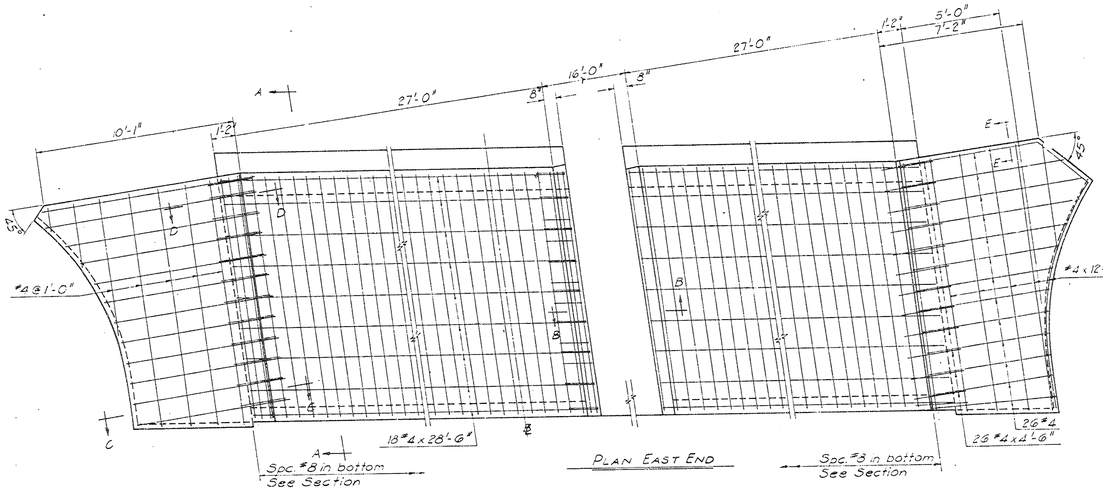
SECTION C-C



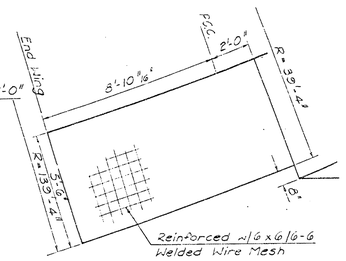
SECTION D-D



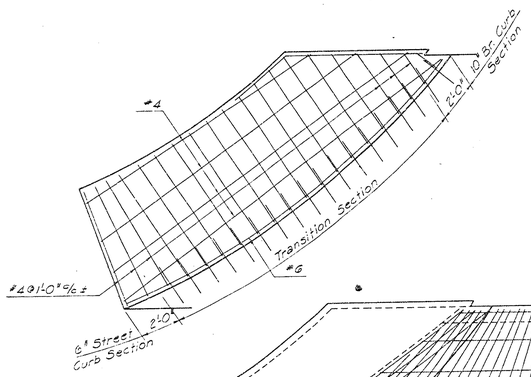
SECTION E-E
(Typical)

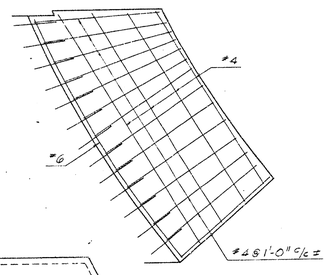


PLAN EAST END

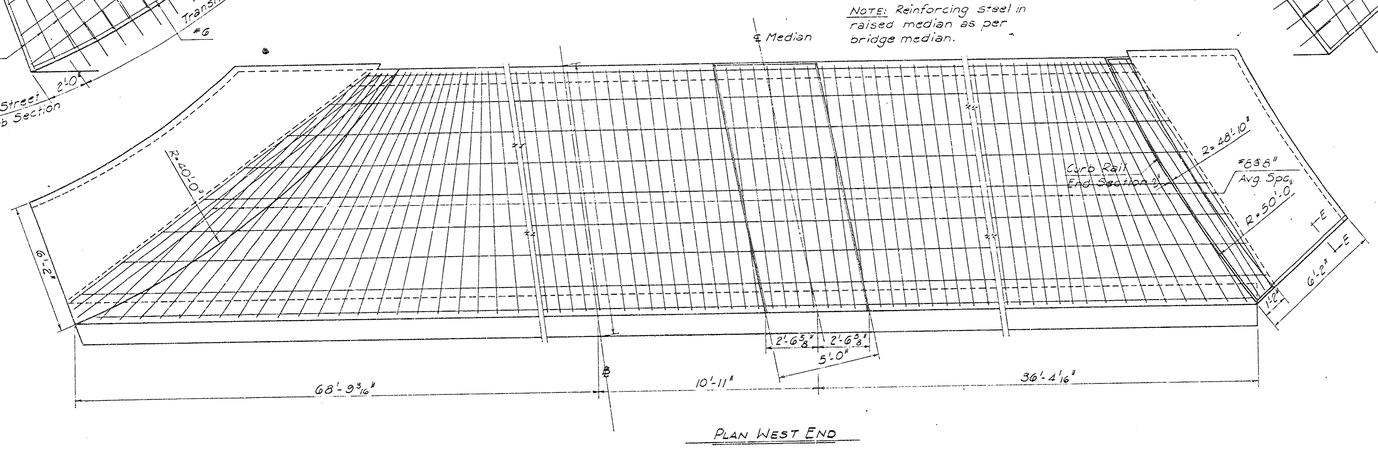


SIDEWALK PLAN AT N.W. CORNER





NOTE: Reinforcing steel in raised median as per bridge median.



PLAN WEST END

NOTE:

All concrete shall be Class AA.

Estimated slab area includes area of curbs and walks.

Estimated quantities in both slabs include:

Concrete	178 Cu. Yds.
Reinf. Steel	1,350 Lbs.

Cure all exposed surfaces with linseed oil emulsion as for bridge deck.

Approved FEB 5 1971

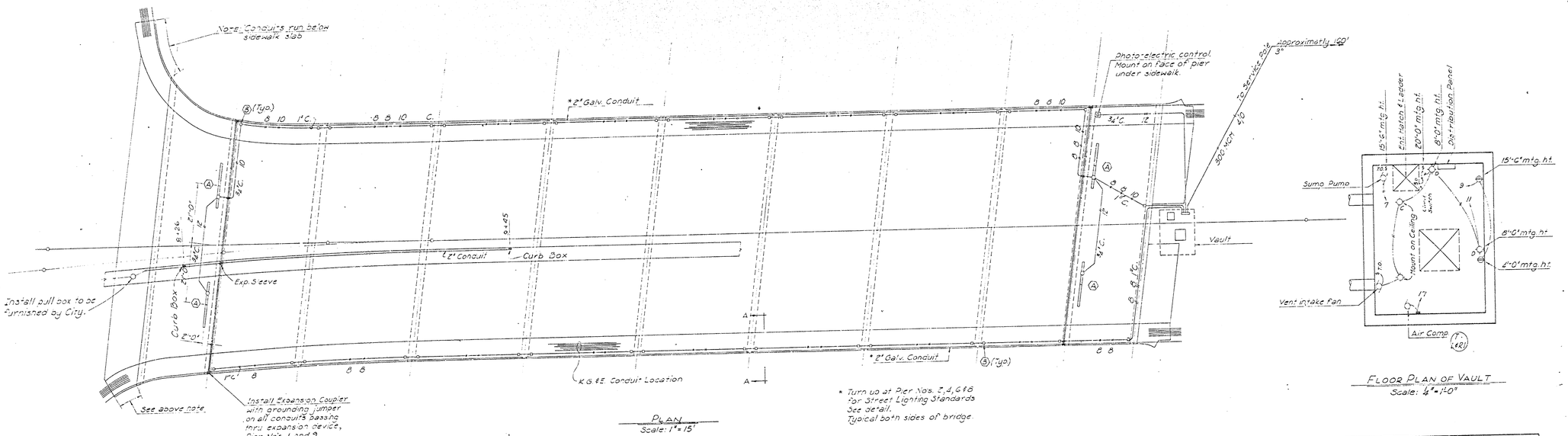
CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

APPROACH SLABS

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE December, 1968
SCALE ———
DWG. NO. 89-E-20

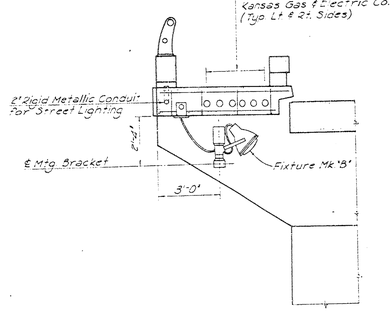


PLAN
Scale: 1" = 15'

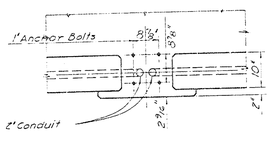
FLOOR PLAN OF VAULT
Scale: 4" = 1'-0"

* Turn up at Pier Nos. 2,4,6&8 for Street Lighting Standards See detail. Typical both sides of bridge.

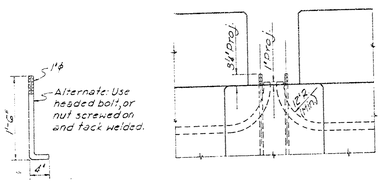
FIXTURE LIST			
Mark	Quantity	Mfr.	Cat. No.
A	8 Ea.	Spaulding	B-CY-1-1500-1
B	32 Ea.	Crouse-Hinds	MVE-18 #46030
C	2 Ea.	Appleton	VXHA-2050 G
D	2 Ea	Appleton	VGAT-1030 G



VIEW A-A

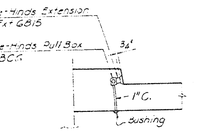


PLAN

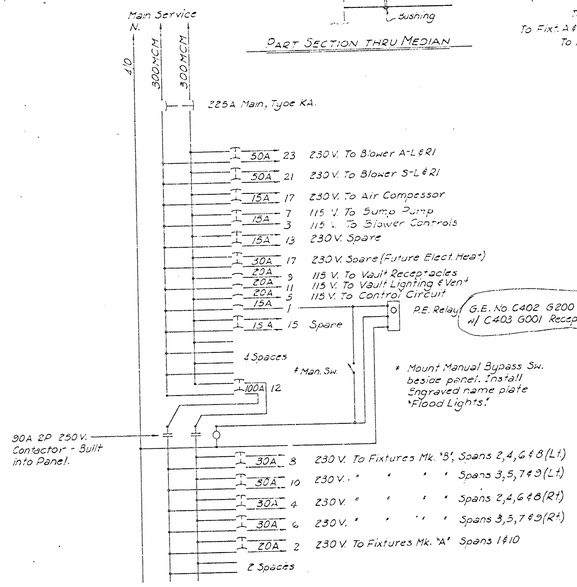


ANCHOR BOLT

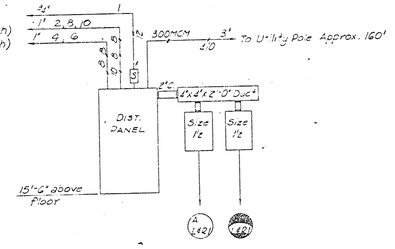
ELEVATION
DETAIL AT LIGHT STANDARD



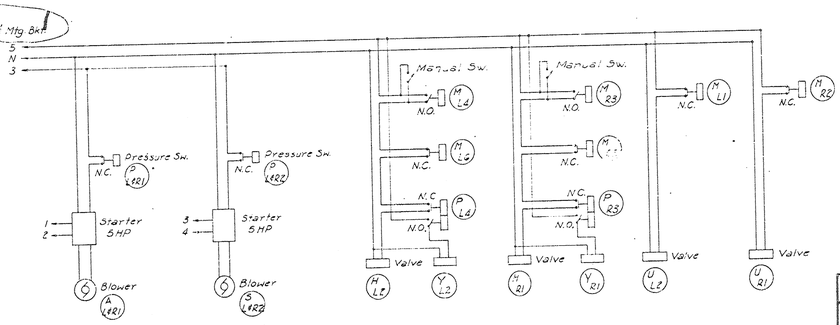
DART SECTION THRU MEDIAN



DISTRIBUTION PANEL
POWER & LIGHTING
120/240 V. 3W, 1Φ
Type NQO. NEMA 1 Enclosure



ELECTRICAL SERVICE RISER



ELECTRICAL SCHEMATIC DIAGRAM
115 Volt Control Circuit

NOTE:

See Sheet 5 for location and size of Control Vault.

See Sheet 16 for exact location of street lights and section of sidewalk slab.

K. G. & E. conduits are not included in this contract; see the specifications.

AS BUILT JAN, 1971 C.P.S.

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

LINCOLN STREET BRIDGE AND DAM
BIG ARKANSAS RIVER

ELECTRICAL LAYOUT

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE December, 1968
SCALE —
DWG. NO. 89-E-21

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