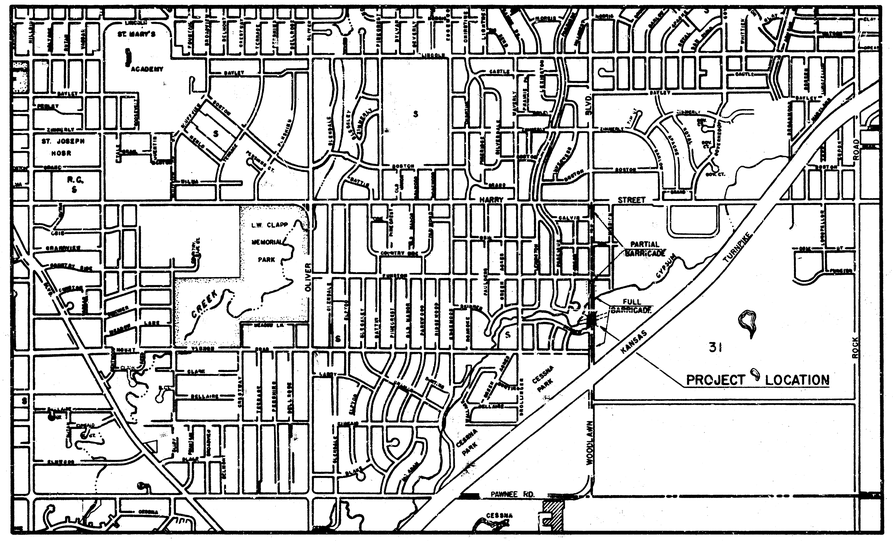
WOODLAWN BRIDGE

OVER

GYPSUM CREEK



CITY OF WICHITA

DEPARTMENT OF PUBLIC WORKS

R. W. BRUGGEMAN, P.E. DIRECTOR OF PUBLIC WORKS
R. W. LINN, P.E. CITY ENGINEER

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

PROJECT DAKB 571018

SEPTEMBER, 1971

INDEX OF SHEETS

Sheet No.
1. Title Sheet
2. Contour Map
3. Construction Layout
4. Abutment Details
5. Pier Details
6. Prestressed Beam Details
7. Superstructure Layout
8. Superstructure Details
9. Auxiliary Details
10. Standard Pile Details
11. Approach Slab Details
12. Bar Supports, Bridge Excavation, Handrail Details, and Summary of Quantities

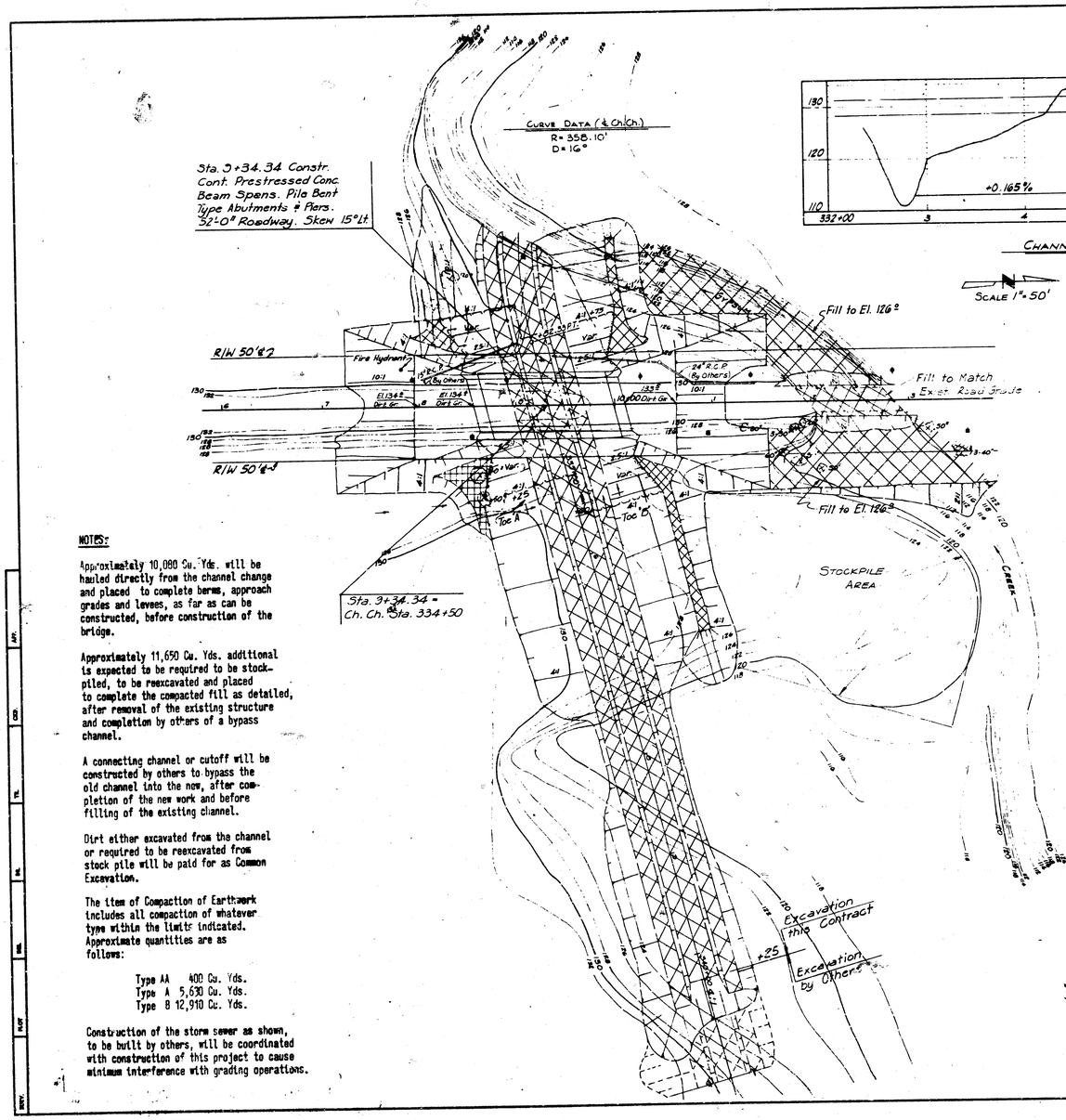
CLARENCE P. SCHAAR LICENSED 1 KANSAS PROFESSIONAL ENGINEER

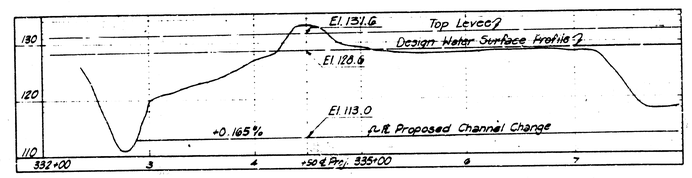
EMMA A. GOEBEL LICENSED 5458 KANSAS PROFESSIONAL ENGINEER

WILMER FRITZEL LICENSED 4529 KANSAS PROFESSIONAL ENGINEER

R. S. DELAMATER ASSOCIATES LICENSED 513 KANSAS PROFESSIONAL ENGINEER

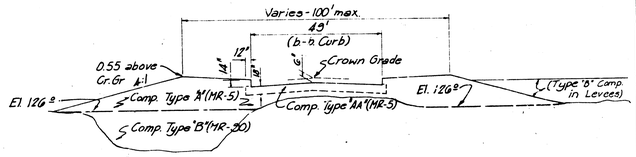
PUB ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS		19 71	2	12





Channel Change Profile

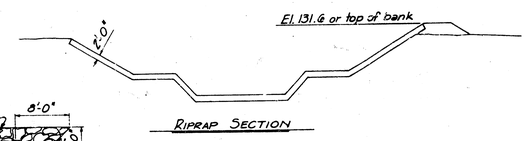
Scale 1" = 50'



Typical Embankment Section on Bridge Approaches



Typical Channel Section



Riprap Section

NOTES:

Approximately 10,080 Cu. Yds. will be hauled directly from the channel change and placed to complete berms, approach grades and levees, as far as can be constructed, before construction of the bridge.

Approximately 11,650 Cu. Yds. additional is expected to be required to be stockpiled, to be reexcavated and placed to complete the compacted fill as detailed, after removal of the existing structure and completion by others of a bypass channel.

A connecting channel or cutoff will be constructed by others to bypass the old channel into the new, after completion of the new work and before filling of the existing channel.

Dirt either excavated from the channel or required to be reexcavated from stock pile will be paid for as Common Excavation.

The item of Compaction of Earthwork includes all compaction of whatever type within the limits indicated. Approximate quantities are as follows:

Type AA	400 Cu. Yds.
Type A	5,630 Cu. Yds.
Type B	12,910 Cu. Yds.

Construction of the storm sewer as shown, to be built by others, will be coordinated with construction of this project to cause minimum interference with grading operations.

2	KH	11-72	Revised As Built
1		8-30-71	

CITY OF WICHITA, KANSAS
R. W. LINN, P.E., CITY ENGINEER

WOODLAWN BRIDGE OVER GYPSUM CREEK

CONTOUR MAP

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE SEPTEMBER 1971
SCALE
DWG. NO. 79-P-2

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS		1971	3	12

B.M. #1 Top of Fire Hydrant
36' Lt. Sta. 7+83 El. 133.70

B.M. #2 Top of Bolt with 3 Tacks
N. End of Gd. Rail N.W. Cor. Exist. Br.
12' Lt. Sta. 12+75 El. 133.20

Sta. 8+00

Sta. 9+00

Sta. 10+00

132'-0⅝" End to End of Hearing Surface

43'-0⅝" 46'-0" 43'-0⅝"

Cr. Gr. 134.66 Cr. Gr. 134.46 Cr. Gr. 134.25 Cr. Gr. 134.06

Crown Grade -0.45%

D.W.S. 128.6

10 BP42 x 30'

10 BP42 x 45'

16" Prestressed Conc. Piles (Batt)

16" Prestressed Conc. Piles (Vert.)

El. 113.0

40'

45'

Light Brown Silty Clay with Sand

Dark Brown Silty Clay

Tan Clay

Tan & Gray Shale & Sand

Gray Shale & Gypsum

Light Brown Silty Clay

Light Brown Silty Clay (Fill)

Clay & Rock (Fill)

Light Gray & Tan Shaley Clay

Dark Gray Shale

Shale & Gypsum

Light Gray Shaley Clay

Dark Gray Clay

Gray Shale & Gypsum

Shale with Clay Layers

Light Brown Silty Clay

Sand

Dark Gray Silty Clay

Light Gray Shaley Clay

Dark Gray Clay

Gray Silty Clay

Light Gray Shaley Clay

Shale

Gray to Light Brown Clay

Clay with Sand

Gray Shale & Fine Sand

Gray Clay

Gray Shale & Gypsum

Shale

TH #1 TH #2 TH #3 TH #4 TH #4A TH #5 TH #5A TH #6 TH #7

Legend:
Penetration,
50 Blows: 0.01 —

NOTE: See Detail Sheets for Pile Cutoffs and Elevations.

ELEVATION

42'-46'-42' Continuous Prestressed Concrete Beam Spans. Pile Bent Type Abutments and Piers. 52'-0" Roadway. Skew 15° Lt.

SCALE: 1"=10'

1'-0⅝" 42'-0" 132'-0⅝" End to End of Hearing Surface 46'-0" 42'-0" 1'-0⅝"

Sta. 8+63.34 ℄ Abut #1

Sta. 9+11.34 ℄ Pier #1

Sta. 9+57.34 ℄ Pier #2

Sta. 10+03.34 ℄ Abut #2

+34.34

52'-0" Roadway

2.5:1

1:1

4:1

15° RCP (By Others)

24" RCP (By Others)

T.H. #1 T.H. #2 T.H. #3 T.H. #4 T.H. #5 T.H. #5A T.H. #6 T.H. #7

Tip El. 102.31 Tip El. 99.02 Tip El. 99.05 Tip El. 99.24 Tip El. 99.32 Tip El. 99.54 Tip El. 97.74 Tip El. 100.04 Tip El. 100.46 Tip El. 100.62 Tip El. 100.53

Tip El. 99.10 Tip El. 99.58 Tip El. 99.32 Tip El. 99.68 Tip El. 99.86 Tip El. 99.85 Tip El. 100.02 Tip El. 100.28 Tip El. 100.76

Tip El. 89.56 Tip El. 88.88 Tip El. 94.97 Tip El. 96.09 Tip El. 99.45 Tip El. 95.30 Tip El. 96.78 Tip El. 95.01 Tip El. 99.07

Tip El. 90.74 Tip El. 90.58 Tip El. 96.77 Tip El. 91.19 Tip El. 91.14 Tip El. 90.23 Tip El. 91.31 Tip El. 91.47 Tip El. 91.48

Tip El. 90.76 Tip El. 91.36

Date Constructed See Sheet 4

NOTE: All Piles driven to point bearing with practical refusal.

℄ WOODLAWN

℄ Project 7

PLAN

NOTE:

See Sheet 9 for General Notes for bridge construction.

Construction of the storm sewers as shown, to be built by others, will be coordinated with construction of this project to cause minimum interference with grading operations.

CITY OF WICHITA, KANSAS
R. W. LINN, P.E., CITY ENGINEER

WOODLAWN BRIDGE OVER GYPSUM CREEK

CONSTRUCTION LAYOUT

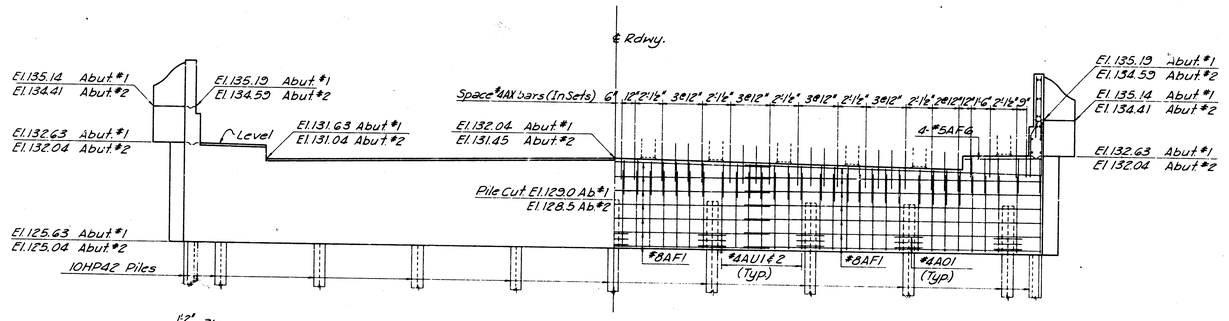
R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE SEPTEMBER 1971
SCALE 1"=10'
DWG. NO. 79-P-3

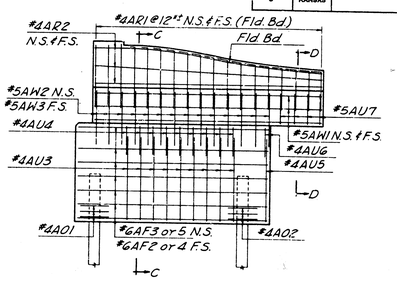
REV. BY DESCRIPTION

R.H. 11 Revised As Built

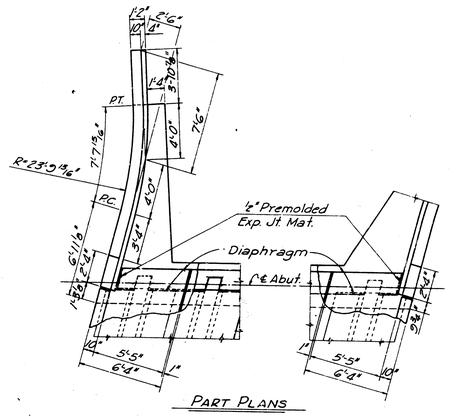
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8	KANSAS		19 71	4	12



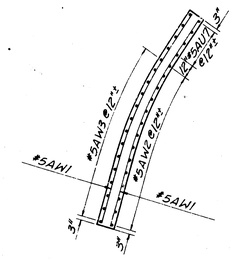
ELEVATION A-A



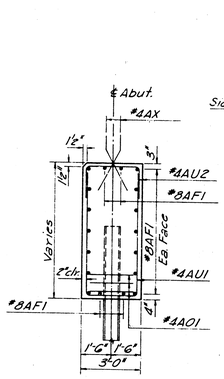
DEVELOPED VIEW OF WING



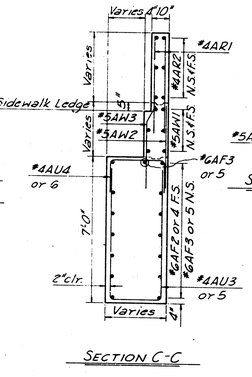
PART PLANS



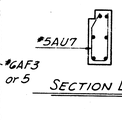
SECTION THRU WING



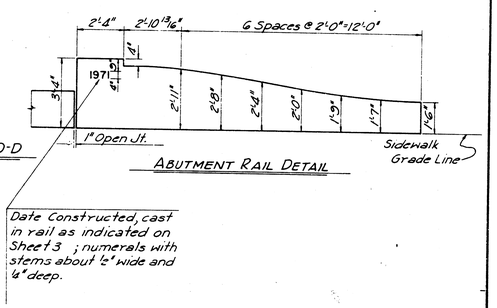
SECTION B-B



SECTION C-C

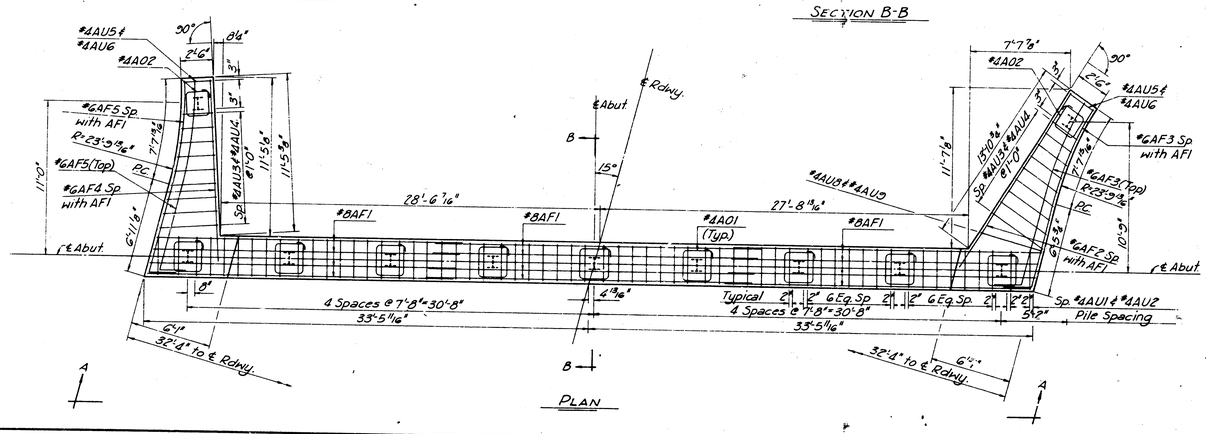


SECTION D-D



ABUTMENT RAIL DETAIL

Date Constructed, cast in rail as indicated on Sheet 3 ; numerals with stems about 1' wide and 4" deep.



PLAN

NOTES:

All concrete shall be Class A(AE). Bevel all exposed edges with a 3/4" triangular molding unless otherwise indicated.

All dimensions relative to placement of reinforceing are to centerline of bars unless otherwise noted.

Abutment piles shall be 10 BP 42 Steel Piles as indicated on Sheet 3 and detailed on Sheet 10.

See Sheet 9 for Bar List and Bending Diagrams.

DESIGN LOADING: HS20-44 A.A.S.H.O. Spec. (1969 Edition)

UNIT STRESSES: fc - 1,200 p.s.i. Class A(AE)
f'c - 3,000 p.s.i. Class A(AE)
fs - 20,000 p.s.i. (Reinf.)

DESIGN PILE LOADING: 45 Tons per Pile - Abuts.

REV	BY	DATE	DESCRIPTION
1	K.H.	VI-72	Revised As Built

CITY OF WICHITA, KANSAS
R. W. LINN, P.E., CITY ENGINEER

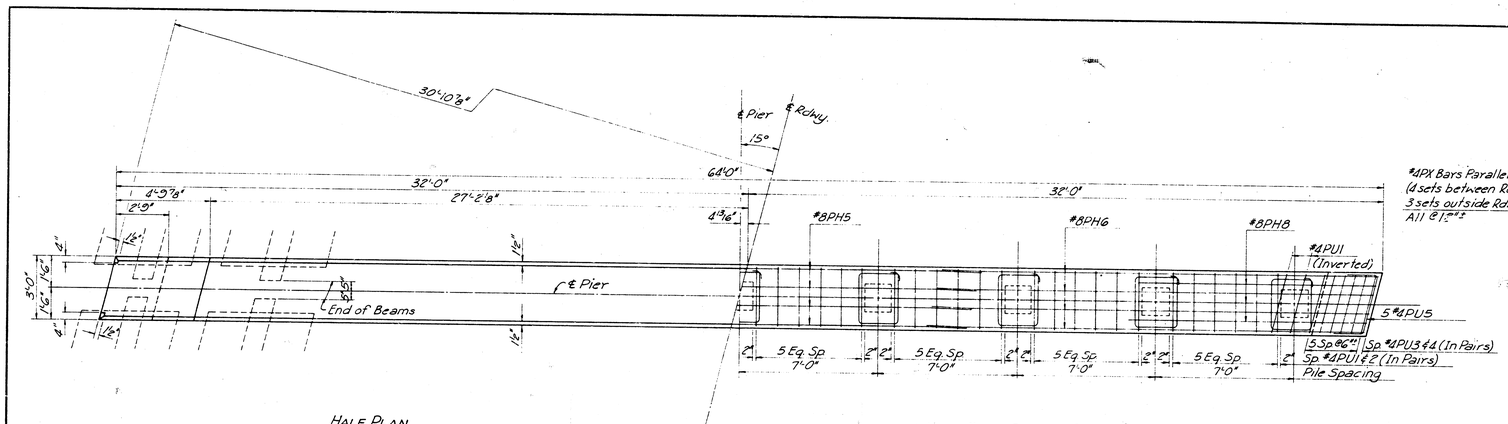
WOODLAWN BRIDGE OVER GYPSUM CREEK

ABUTMENT DETAILS

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

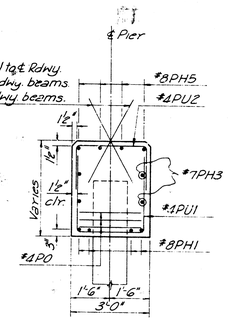
DATE SEPTEMBER 1971
SCALE
DWG. NO. 79-P-4

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	F'SCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS		1971	5	12

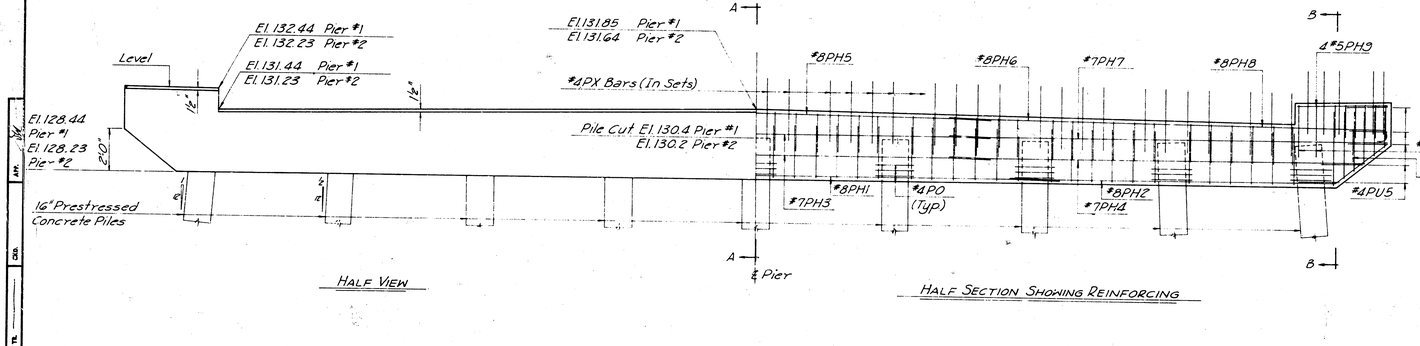


HALF PLAN

HALF PLAN SHOWING REINFORCING

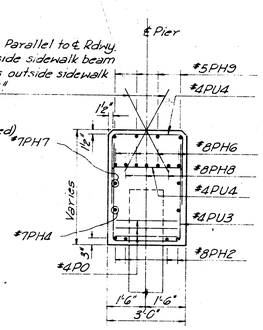


SECTION A-A



HALF VIEW

HALF SECTION SHOWING REINFORCING



SECTION B-B

NOTES:
All concrete shall be Class A(AE). Bevel all exposed edges with a 3/4" triangular molding unless otherwise indicated.

All dimensions relative to placement of reinforcing are to centerline of bars unless otherwise noted.

Pier piles shall be 16" prestressed concrete piles as indicated on Sheet 3 and detailed on Sheet 10.

See Sheet 9 for Bar List and Bending Diagrams.

DESIGN LOADING: H520-44 A.A.S.H.O. Spec. (1969 Edition)

UNIT STRESSES: fc = 1,200 p.s.i. Class A(AE)
f'c = 3,000 p.s.i. Class A(AE)
fs = 20,000 p.s.i. (Reinf.)

DESIGN PILE LOADING: 55 Tons per Pile

1	K.H.	11-72	Revised As Built
BY	CK	DATE	REMARKS

CITY OF WICHITA, KANSAS
R. W. LINN, P.E., CITY ENGINEER

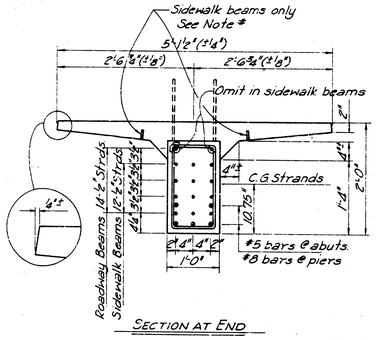
WOODLAWN BRIDGE OVER
GYPSUM CREEK

PIER DETAILS

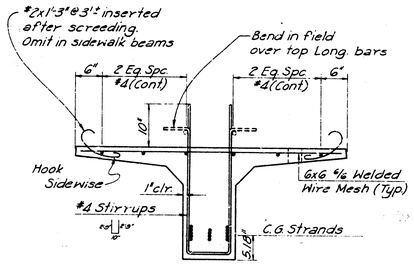
R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE SEPTEMBER 1971
SCALE ———
DWG. NO. 79-P-5

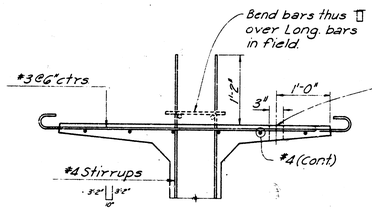
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8	KANSAS		1971	6	12



SECTION AT END

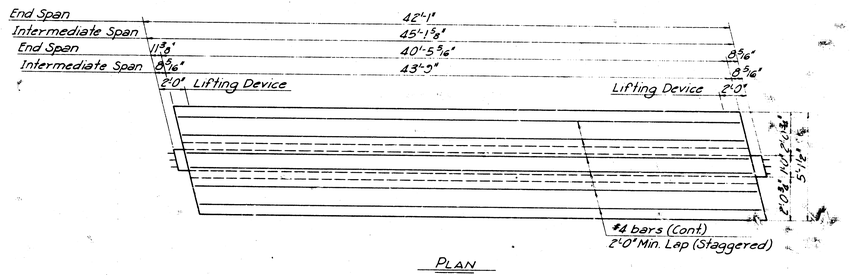


SECTION AT MID-SPAN

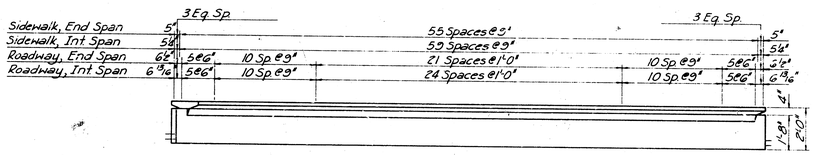


PART SECTION
(Sidewalk Beam Only)

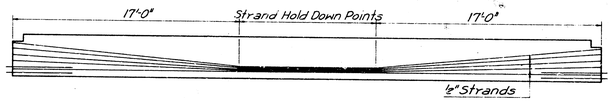
* NOTE: At Contractors option, threaded inserts or drilled holes for forms, where needed.



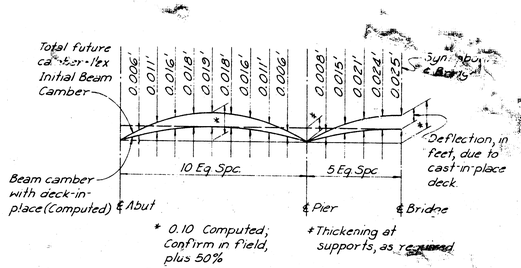
PLAN



ELEVATION



LONGITUDINAL SECTION THRU BEAM

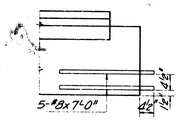


* 0.10 Computed; Confirm in field, plus 50%

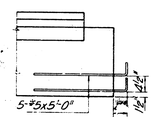
Thickening at supports, as required

DEADLOAD DEFLECTION DIAGRAM

NOTE: Set final crown grade at minimum thickness over high point of beams, and adjust back to supports as required.



END DETAIL AT PIERS



END DETAIL AT ABUTS

DESIGN:
LOADING: H520-44 A.A.S.H.O. Spec. (1969 Edition)

CONCRETE: f'c - 6,000 p.s.i. at 28 days
f'ci - 4,800 p.s.i. (Minimum Release Strength)

PRESTRESSING STEEL:
½" nominal diameter 7-wire high tensile type, uncoated, stress relieved strands having the following properties:
Minimum Ultimate Strength = 268,000 p.s.i.
Initial Stress - 70% Ult. = 187,600 p.s.i.
Initial Tension per strand = 28,910 lbs.

STEEL PLACEMENT: All dimensions shown relative to placement of reinforcing steel are to centerline of bars or strands unless otherwise noted.

HANDLING: Precast beams shall at all times be handled and transported in an upright position and points of support shall be approximately the same during transportation and storage as when the beam is in its final position.

See Sheet 7 for Beam Erection Notes.

REV	BY	DATE	
1	KH	11-72	Revised As Built

CITY OF WICHITA, KANSAS
R. W. LINN, P.E., CITY ENGINEER

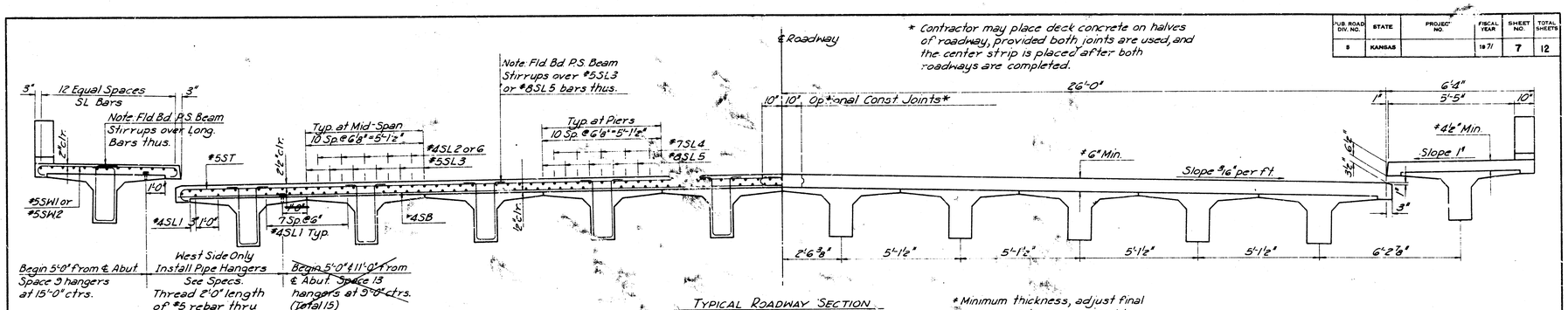
WOODLAWN BRIDGE OVER GYPSUM CREEK

PRESTRESSED BEAM DETAILS

R. S. DELAMATER CONSULTING ENGINEER WICHITA, KANSAS	DATE SEPTEMBER 1971
	SCALE ———
	DWG. NO. 79-P-6

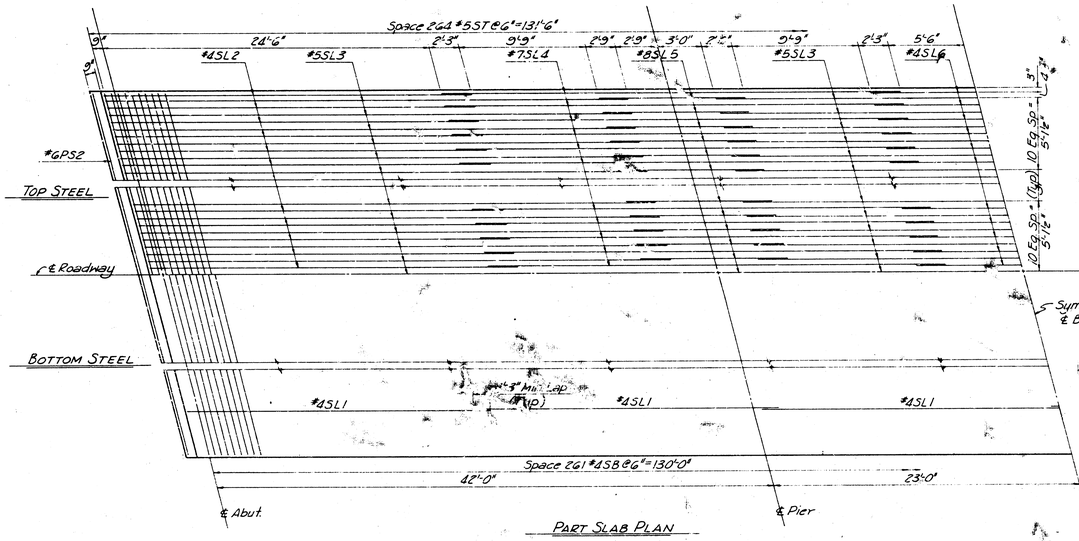
DES. K.A.S. DR. E.C.B. TR. CKD. APP. PLOT SURV.

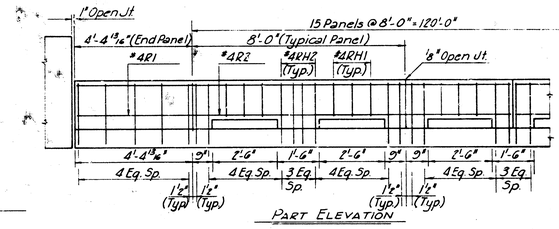
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8	KANSAS		19 71	7	12



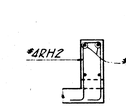
TYPICAL ROADWAY SECTION

* Minimum thickness, adjust final crown grade as required to compensate for actual camber in beams.

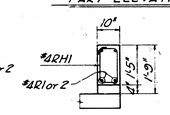




PART ELEVATION



SECTION THRU POST



SECTION THRU DRAIN

BEAM ERECTION NOTES:

Beams may be placed on the bridge at any time after the end of the curing period. Beams shall be placed and set as shown, with the tops conforming to the crown of the deck surface. Beams shall be set at the spacing indicated, and with each line of beams carefully aligned across the piers. In case of variation in length, equalize the variation between the two ends of the beam.

Set each beam on a full bed of stiff grout, as noted; to insure proper positioning, set each beam in position, without grout; lift one end at a time just sufficiently to place a grout bed, and set down on the grout.

Beam ends shall have full bearing on grout, only; they shall not be set on metal bars or rods. Temporary wood or metal wedges may be used to maintain grout thickness and prevent ~~tipping~~, but if used shall be removed before diaphragm concrete is placed. Temporary short shores under the flanges to the top of the pier may be helpful in maintaining beam position until diaphragm concrete is placed and set up.

BY	DATE	DESCRIPTION
KH	VI-72	Revised As Built

CITY OF WICHITA, KANSAS
R. W. LINN, P.E., CITY ENGINEER

WOODLAWN BRIDGE OVER GYPSUM CREEK

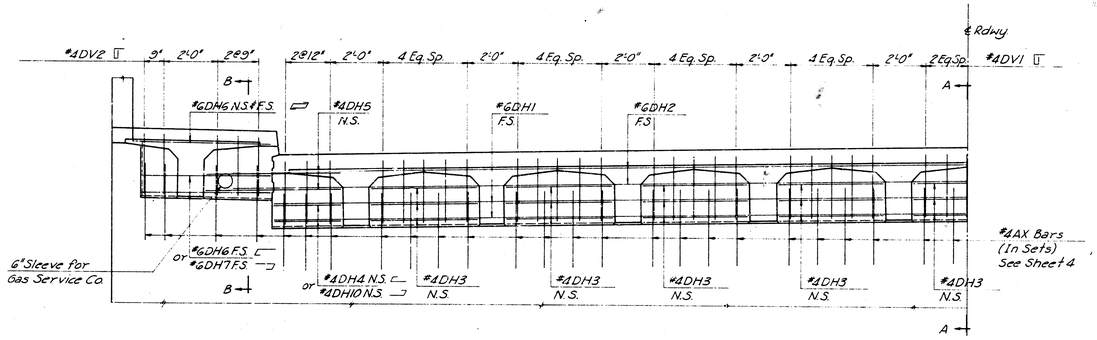
SUPERSTRUCTURE LAYOUT

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

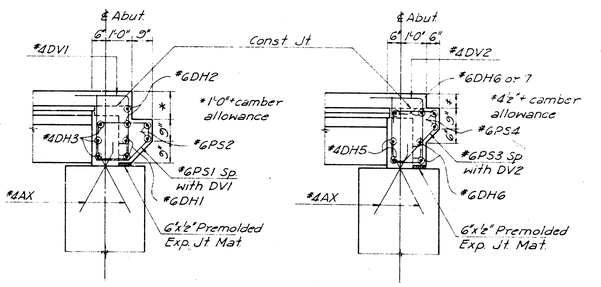
DATE SEPTEMBER 1971
SCALE ———
DWG. NO. 79-P-7

APP. DES. DR. CHK. QUAN. PLOT SURV.

PUB ROAD DIV NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS		19 71	8	12

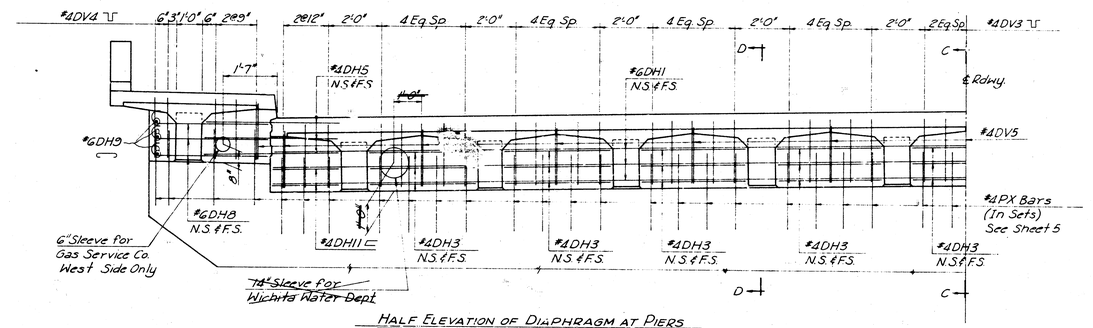


HALF ELEVATION OF CURTAIN WALL AT ABUTMENTS

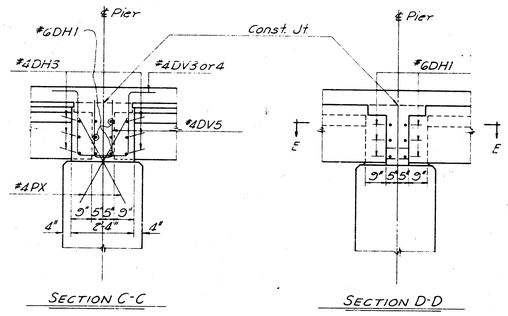


SECTION A-A

SECTION B-B

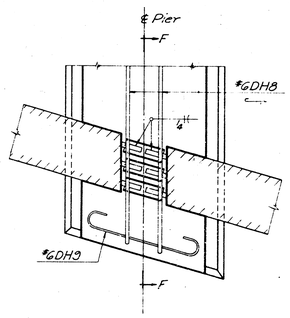


HALF ELEVATION OF DIAPHRAGM AT PIERS

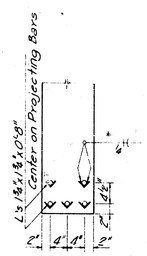


SECTION C-C

SECTION D-D



SECTION E-E



SECTION F-F

NOTE: Angles may be rotated for welding. Angles shall be subsidiary to bid item of Prestressed Concrete Beams.

NOTES:
Class AAA(AE) Concrete shall be used in the Superstructure, including Curbs and Diaphragms, except for Prestressed Beams. Bevel all exposed edges with a 3/4" triangular molding unless otherwise noted.

All dimensions relative to placement of reinforcing steel are to centerline of bars unless otherwise noted. See Sheet 9 for Bar List and Bending Diagrams.

See Sheet 7 for Beam Erection Notes.

Diaphragms shall not be placed until all beams have cured a minimum of 28 days. Topping shall be placed a minimum of three days after pier and abutment diaphragms are placed and shall preferably be placed continuously the full length of the bridge; if a joint is used it shall be at the quarter point short of the pier.

See Sheet 12 for Handrail Details

UNIT STRESSES: fc - 1,600 p.s.i. Class AAA(AE)
f'c - 4,000 p.s.i. Class AAA(AE)
fs - 20,000 p.s.i. (Reinf.)

REV	BY	DATE	DESCRIPTION
1	K.H.	VI-72	Revised As Built

CITY OF WICHITA, KANSAS
R. W. LINN, P.E., CITY ENGINEER

WOODLAWN BRIDGE OVER GYPSUM CREEK

SUPERSTRUCTURE DETAILS

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE SEPTEMBER 1971
SCALE ———
DWG. NO. 79-P-8

APP. | CHD. | TR. | CK. | DES. | PLOT | SURV.

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS		19	9	12

BAR LIST

ONE ABUTMENT

STRAIGHT BARS				BENT BARS			
Mark	Wa Req.	Size	Length	Mark	Wa Req.	Size	Length
AF1	54	8	24'-6"	AF3	8	6	16'-0"
AF2	7	6	15'-6"	AF5	8	6	16'-6"
AF4	7	6	13'-0"				
AF6	8	5	6'-0"	A01	97	4	11'-0"
				A02	6	4	9'-0"
				AU1	60	4	13'-8"
				AU2	60	4	7'-4"
				AU3	18	4	*
AR1	72	4	4'-0"	AU4	18	4	*
AR2	12	4	17'-0"	AU5	2	4	13'-2"
				AU6	2	4	4'-10"
				AU7	8	5	5'-4"
				AU8	1	4	17'-8"
				AU9	1	4	10'-0"
AW2	28	5	4'-0"				
				AW1	12	5	16'-11"
				AW3	28	5	4'-0"
				AX	100	4	3'-0"
				*See Bending Diagrams			

ONE PIER

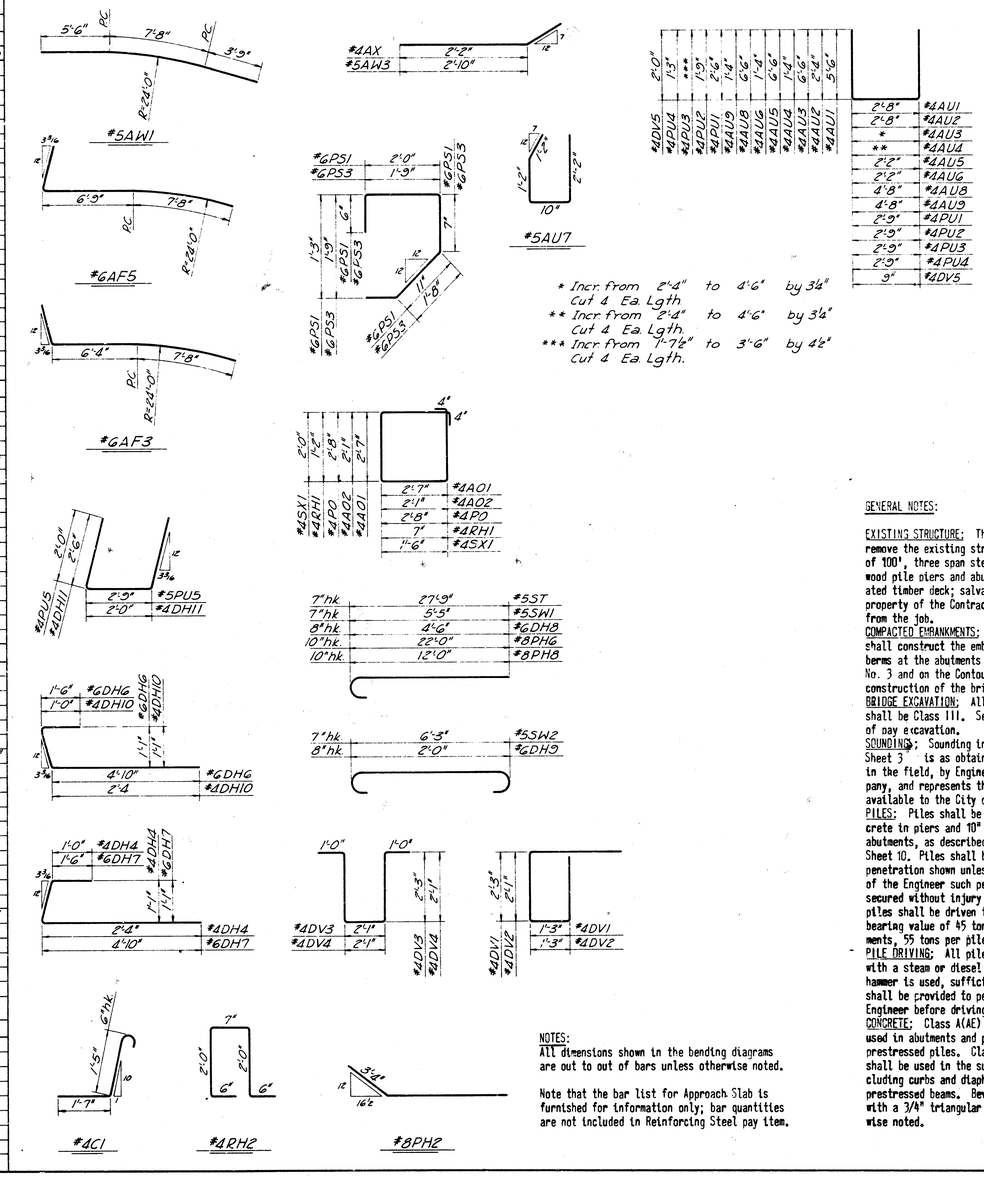
				PH2	8	8	19'-6"
PH1	4	8	30'-0"				
PH3	4	7	24'-0"				
PH4	4	7	21'-0"	PH6	8	8	22'-10"
PH5	4	8	24'-0"				
PH7	4	7	22'-0"	PH8	6	8	12'-10"
PH9	8	5	4'-6"				
				PO	27	4	11'-4"
PX	104	4	3'-6"	PU1	52	4	7'-9"
				PU2	48	4	6'-3"
				PU3	12	4	*
				PU4	14	4	5'-3"
				PU5	10	4	6'-9"
				*See Bending Diagrams			

SUPERSTRUCTURE

				DV1	102	4	7'-9"
SL1	456	4	23'-0"	DV2	20	4	7'-5"
SL2	132	4	27'-6"	DV3	102	4	8'-7"
SL3	213	5	40'-0"	DV4	20	4	8'-3"
SL4	152	7	35'-0"	DV5	26	4	4'-9"
SL5	142	8	11'-0"				
SL6	66	4	15'-6"	ST	528	5	28'-4"
SB	522	4	27'-9"	SW1	12	5	6'-0"
				SW2	620	5	7'-5"
DH1	48	6	19'-6"				
DH2	12	6	21'-0"	DH4	4	4	4'-6"
DH3	162	4	3'-9"	DH6	12	6	7'-5"
DH5	32	4	5'-0"	DH7	4	6	7'-5"
				DH8	24	6	5'-2"
				DH9	12	6	3'-4"
R1	16	4	4'-2"	DH10	4	4	4'-6"
R2	120	4	7'-9"	DH11	8	4	7'-0"
				RH1	180	4	4'-2"
PS2	12	6	19'-6"	RH2	260	4	5'-7"
PS4	8	6	4'-6"	PS1	102	6	5'-4"
				PS3	20	6	5'-1"

ONE APPROACH SLAB

CT1	2	6	12'-0"	C1	26	4	3'-6"
AS1	76	8	11'-8"				
AS2	26	5	29'-0"				
				SX1	57	4	7'-8"
SX2	12	8	30'-0"				



* Incr. from 2'-4" to 4'-6" by 3¼"
Cut 4 Ea. Lgth.
** Incr. from 2'-4" to 4'-6" by 3¼"
Cut 4 Ea. Lgth.
*** Incr. from 1'-7½" to 3'-6" by 4½"
Cut 4 Ea. Lgth.

GENERAL NOTES:

EXISTING STRUCTURE: The Contractor shall remove the existing structure, consisting of 100', three span steel beam bridge, on wood pile piers and abutments, with laminated timber deck; salvage to become the property of the Contractor, to be removed from the job.

COMPACTED EMBANKMENTS: The Contractor shall construct the embankments and the berms at the abutments as shown on Sheet No. 3 and on the Contour Map prior to construction of the bridge.

BRIDGE EXCAVATION: All bridge excavation shall be Class III. See Sheet 12 for limits of pay excavation.

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

PILES: Piles shall be 16" prestressed concrete in piers and 10" steel piles in abutments, as described and detailed on Sheet 10. 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. All piles shall be driven to a minimum computed bearing value of 45 tons per pile in abutments, 55 tons per pile in piers.

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.

CONCRETE: Class A(AE) concrete shall be used in abutments and piers, except for prestressed piles. Class AAA(AE) concrete shall be used in the superstructure, including curbs and diaphragms, except for prestressed beams. Bevel all exposed edges with a ¾" triangular molding unless otherwise noted.

REINFORCING STEEL: All dimensions 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.

UTILITY HANGERS: Concrete inserts for pipe hangers for gas and water lines are to be furnished by the Contractor and installed as shown and detailed.

DESIGN:
Design Loading: HS20-44 A.A.S.H.O. Spec. (1969 Edition)
Unit Stress: fc = 1,600 psi Class AAA(AE)
fc = 1,200 psi Class A(AE)
fs = 20,000 psi (Rein.)
f'c = 4,000 psi Class AAA(AE)
f'c = 3,000 psi Class A(AE)
Pile Loading: 55 tons per pile in piers
45 tons per pile in abutments

QUANTITIES: All quantities shown on these plans shall be used as final pay quantities except that measurement and payment for piling, common excavation and compaction of earthwork shall be in accordance with the specifications.

GENERAL REQUIREMENTS: It is the intention of these plans and specifications that construction of the bridge shall be in accordance with applicable standard specifications and requirements of the Kansas State Highway Commission and that materials shall conform to these specifications unless otherwise noted.

REV	BY	DATE	DESCRIPTION
1	K.H.	VI-72	Revised As Built

CITY OF WICHITA, KANSAS
F. W. LINN, P.E., CITY ENGINEER

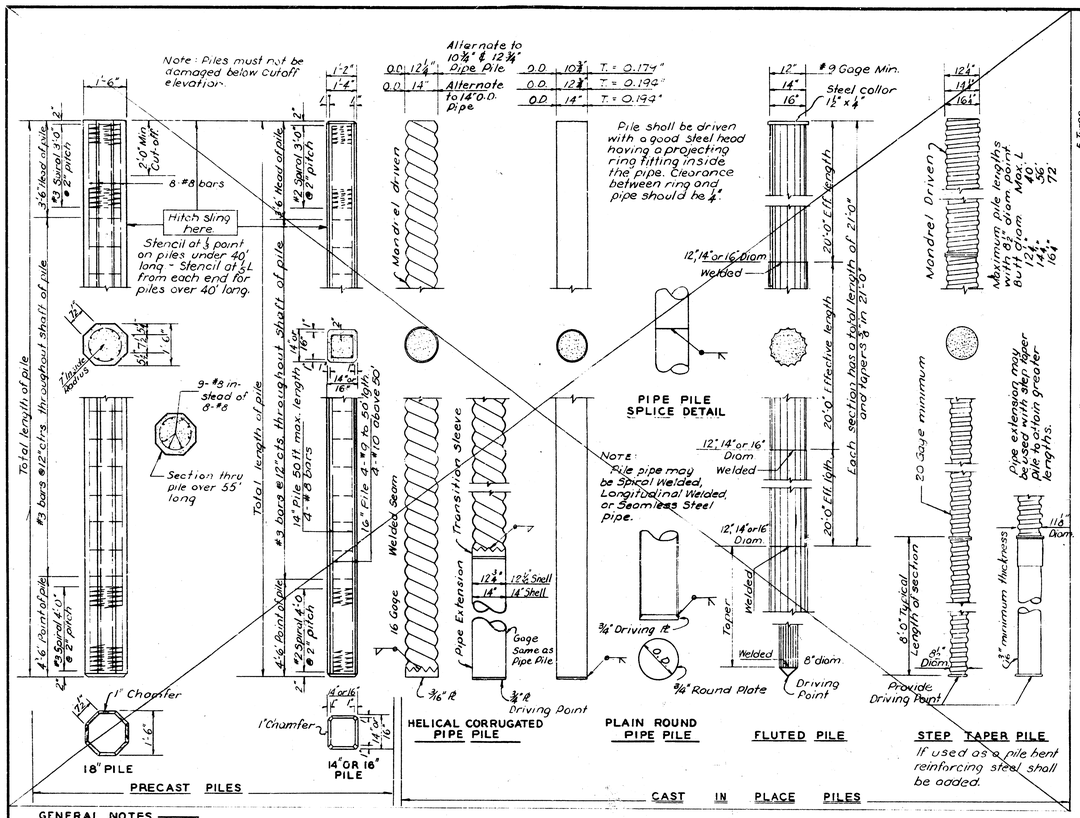
WOODLAWN BRIDGE OVER GYPSUM CREEK

AUXILIARY DETAILS

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE SEPTEMBER 1971
SCALE ———
DWG. NO. 79-P-9

PUB ROAD DIV NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	KANSAS		19 71	10	12



PILES

STEEL PILES	EQUIVALENT CONCRETE PILES					
	PRECAST	PIPE	FLUTED	STEP TAPER	PRE-STRESSED	*
10BP42	14"	10¾"	12"	12¼"	12"	12¼"
12BP53	16"	12¾"	14"	14⅛"	14"	12¼"
14BP73	18"	14"	16"	16¼"		14"

* Helical Corrugated Pipe Shell.

CONCRETE PILES

PIPE PILE	EQUIVALENT CONCRETE PILES					
	PRECAST	FLUTED	STEP TAPER	PRE-STRESSED	*	
10¾"	14"	12"	12¼"	12"	12¼"	
12¾"	16"	14"	14⅛"	14"	12¼"	
14"	18"	16"	16¼"		14"	

GENERAL NOTES

1. Specifications.
Standard Specifications for State Road and Bridge Construction as currently used by the State Highway Commission of Kansas. (Ed. 1964).

2. Choice of Piles.
Where Piles are specified, the Contractor may elect to use either the Steel Pile specified on the plans or the equivalent precast concrete, cast-in-place concrete or prestressed concrete pile shown on the construction layout sheet.
Where Concrete Piles are specified the Contractor may elect to use either the size and type concrete pile specified on the plans or the equivalent precast concrete, cast-in-place concrete or pre-stressed concrete pile shown on the construction layout sheet.
Other types of concrete piles not shown here are subject to the approval of the Engineer. Prestressed Concrete piles, Helical Corrugated Pipe shell or Step Taper piles shall not be used for abutments without expansion joints on bridges more than 150 ft. long.

3. Concrete.
All concrete for Precast and Cast-in-place shall be Class A Concrete. fc' = 3,000 p.s.i.. See Article G1-7(a) Standard Specs.
Concrete for Prestressed Concrete piles shall be Class AAA Concrete. fc' = 4,000 p.s.i.. See Article G1-7(b) Standard Specs.

4. Reinforcement
Reinforcing bars shall be new billet steel of intermediate grade without exception. Hoops and spirals may be either plain or deformed bars.

5. Precast Piles.
Precast piles shall conform to the requirements of Article G1-7(a). Standard Specifications.

6. Cast-in-Place Shells.
Steel Shells for Cast-in-place Concrete Piles shall conform to the requirements of Section U-7. Standard Specifications.
All piles driven without mandrel use gages or thicknesses shown above, except fluted pile use No.9 gage minimum. Piles driven with mandrel shall be of sufficient strength and thickness to withstand driving without injury and to resist harmful distortion and/or buckling due to soil pressure after the mandrel is removed.
Improperly driven, broken or otherwise defective shells shall be removed and replaced or otherwise corrected to the satisfaction of the Engineer by removal and replacement, or the driving of an additional pile at no extra cost.
The Contractor shall maintain on the job at all times prior to and during the filling of the shells, a light suitable for visual inspection of the pile.

7. Steel Pile
Steel Pile shall conform to requirements of Subsection U5-8 Standard Specifications.

8. Pile Points
Pile points shall conform to the dimensions shown and requirements of Article U7-2(c) Standard Specifications. Pile points shall be mill welded to pile.

9. Welding
All field welding shall meet the requirements of Subsection G1-6 Standard Specifications.

10. Paint
All paint shall comply with Subsection 913-8 Standard Specifications. Or as specified on the plans.

11. Test Piles.
Test Piles shall be driven where called for on the Bridge plans. All test piles shall be located so that they will become part of the Bridge Pile system.

12. Splices.
Splices for Steel Piles and Shell Piling shall be in accordance with details shown on this sheet and shall comply with Subsection G1-6 Std Specs.
Precast Concrete Pile splices shall comply with Subarticle G1-7(d)(1). Std. Specifications.
Prestressed Concrete Pile splices shall be made in accordance with the manufacturers recommendations, subject to the approval of the Engineer.

13. Driving formula.
Driving formula shall conform to Subarticle G1-4(a)(3).

14. Mill Test Reports
Steel Piles test reports shall comply with Art. U5-8(c) Standard Specifications.
Steel Shells test reports for cast-in-place piles shall comply with Subsection U7-4 Std. Specs.

15. Payment
Payment for all piles shall comply with Subsec. G1-9. Std. Specifications.

NO	DATE	REVISIONS	BY	APP'D
5	8-26-66	Revise Entire Gen. Note	J.C.L.	E.E.W.
4	4-8-66	Add Longitudinal Welded Pipe pile	J.C.L.	T.W.O.
3	9-9-65	Revise Precast Pile note 5 to 6	J.C.L.	T.W.O.
2	3-27-63	Revise Pipe Pile General Note	J.C.L.	T.W.O.
1	1-24-61	Remove hole in Prestressed Conc. Pile	J.C.L.	T.W.O.

REV	BY	DATE	DESCRIPTION
1	K.H.	11-72	Revised As Built

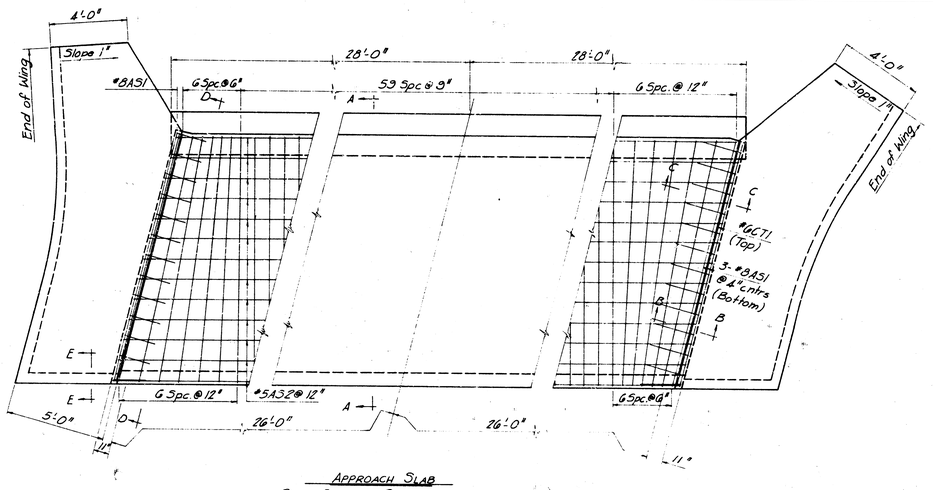
STATE HIGHWAY COMMISSION OF KANSAS

STANDARD PILE DETAILS

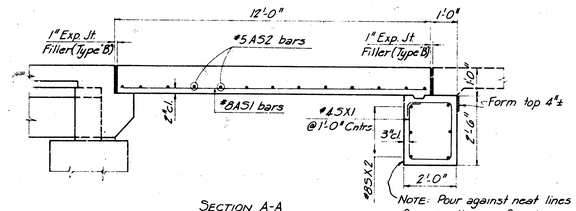
STD. NO. 102

SHEET NO	OF	SCALE	APP'D	
DESIGNED		DETAILED	QUANTITIES	TRACED
DESIGN CK		DETAIL CK	QUAN CK	TRACE CK

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS		19 71	11	12

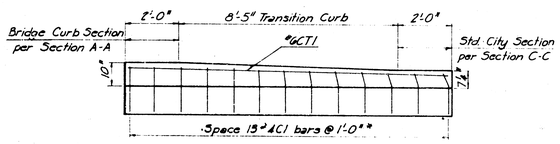


APPROACH SLAB
PLAN SHOWING REINFORCEMENT

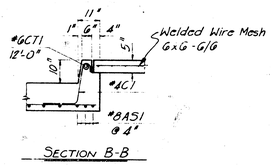


SECTION A-A

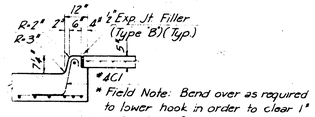
NOTE: Pour against neat lines of excavation; no forming except as shown.



SECTION D-D

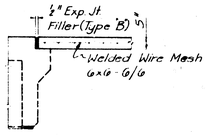


SECTION B-B



* Field Note: Bend over as required to lower hook in order to clear 1" below top of curb.

SECTION C-C



SECTION L-L

NOTES:
The item "Approach Slab" includes fine grading, and furnishing, forming, placing and finishing all concrete and reinforcing steel required for one approach slab at each end of the bridge, as detailed on this sheet.

Cure the concrete as provided for bridge deck.

Use Class AAA(AE) Concrete in approach slabs, including sidewalks.

See Sheet 9 for General Notes.

See Sheet 9 for Bar List and Bending Diagrams, (for information only).

Approximate Quantities, Each Slab (Two thus)
Concrete, Class AAA(AE) 38.5 Cu. Yds.
Reinforcing Steel 4,580 Lbs.*
*Includes 80 Lbs. wire mesh

REV.	BY	DATE	DESCRIPTION
1	K.H.	VI-72	Revised As Built

CITY OF WICHITA, KANSAS
R. W. LINN, P.E., CITY ENGINEER

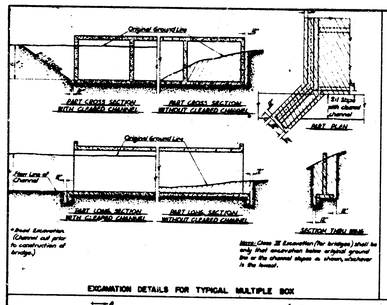
WOODLAWN BRIDGE OVER
GYPSUM CREEK

APPROACH SLAB DETAILS

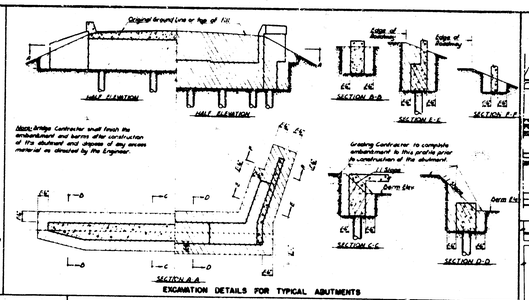
R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE SEPTEMBER 1971
SCALE —
DWG. NO. 79-P-11

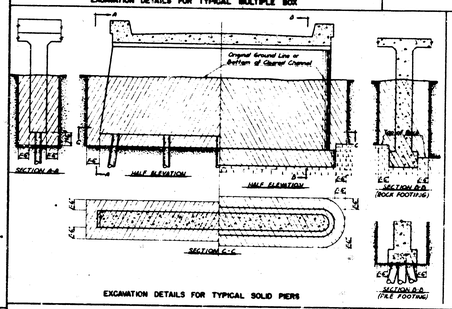
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7	KANSAS		19 71	12	



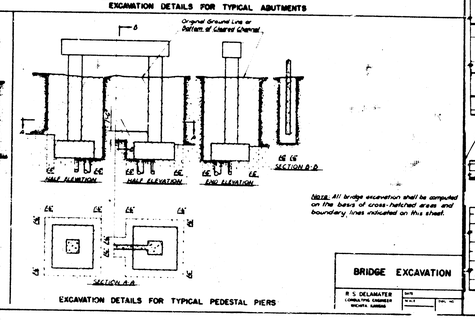
EXCAVATION DETAILS FOR TYPICAL MULTIPLE BOX



EXCAVATION DETAILS FOR TYPICAL ABUTMENTS



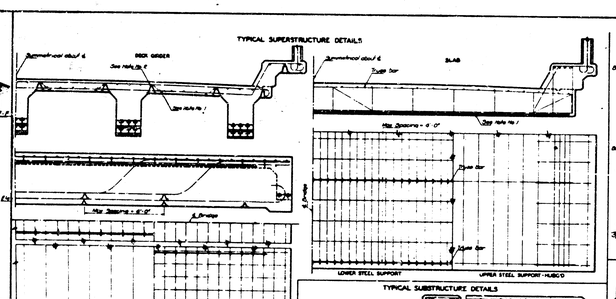
EXCAVATION DETAILS FOR TYPICAL SOLID PIERS

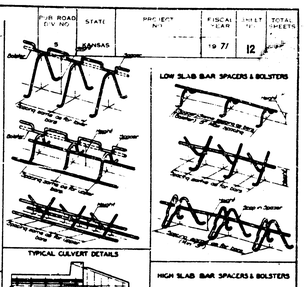


EXCAVATION DETAILS FOR TYPICAL PEDESTAL PIERS

BRIDGE EXCAVATION

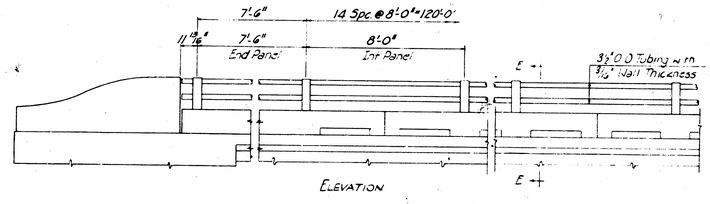
R. S. DELAMATER, CONSULTING ENGINEER, WICHITA, KANSAS

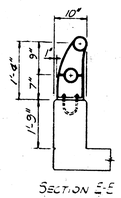


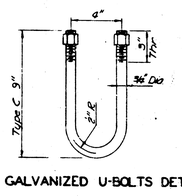


SUPPORTS AND SPACERS FOR REINFORCING STEEL

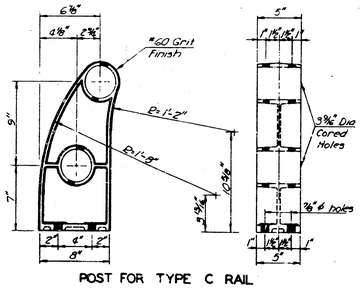
STD NO 910



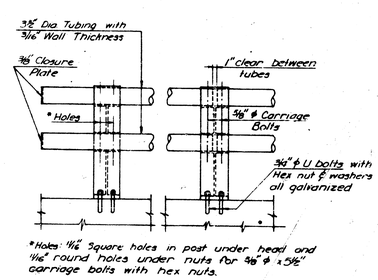




GALVANIZED U-BOLTS DETAILS



POST FOR TYPE C RAIL



*Holes: 1½" Square holes in post under head and 1⅛" round holes under nuts for ⅜" ϕ x 5½" carriage bolts with hex nuts.

ALUMINUM HANDRAIL DETAILS TYPE C

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 1 1/16" 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 thickness of base shall be ¾" with minimum of ⅝".
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.

HANDRAIL DETAILS

SUMMARY OF BRIDGE QUANTITIES

Item	Abut #1	Pier #1	Pier #2	Abut #2	Superst	Total	Unit
Excavation, Class III	100			100		200	Cu. Yds.
Class AAA(AE) Conc.					209.4	* 209.4	Cu. Yds.
Class A(AE) Conc.	74.7	23.0	23.0	74.7		195.4	Cu. Yds.
Reinforcing Steel	6,680	3,350	3,350	6,680	71,900	91,960	Lbs.
Prestr'd. Conc. Beams					36	36	Each
Aluminum Handrail					254	254	Lin. Ft.
Steel Piles (10")	330			495		825	Lin. Ft.
Prestr'd. Conc. Piles(16")		360	405			765	Lin. Ft.
Approach Slabs						2	Each

*NOTE: Superstructure concrete quantity includes allowance for concrete required to level up prestressed beam camber.

SUMMARY OF GRADING QUANTITIES

Item	Quan.	Unit
Large Trees	10	Each
Common Excavation	34,380	Cu. Yds.
Compaction of Earthwork	18,940	Cu. Yds.
Removal of Exist Structure	L. S.	L. S.
Dumped Rock Rip Rap	2,150	(2½) Yds.

NO	BY	DATE	DESCRIPTION
1	K.H.	11-72	Revised As Built

CITY OF WICHITA, KANSAS
R. W. LINN, P.E., CITY ENGINEER

WOODLAWN BRIDGE OVER GYPSUM CREEK

BAR SUPPORTS, BR. EXC., HANDRAIL SUMMARY OF QUANTITIES

R. S. DELAMATER, CONSULTING ENGINEER, WICHITA, KANSAS

DATE: SEPTEMBER 1971
SCALE: ———
DWG NO: 79-P-12

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