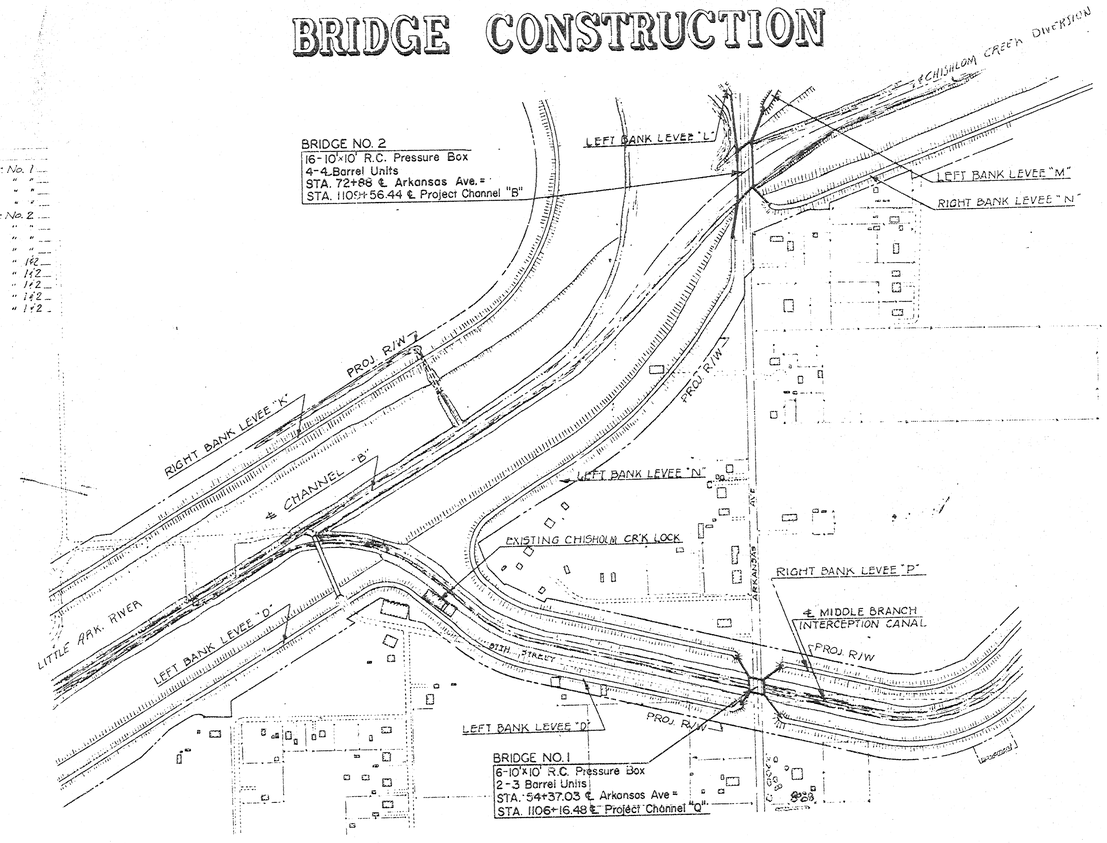
SEDGWICK COUNTY, KANSAS

BRIDGE CONSTRUCTION

INDEX

SHEET NO.	TITLE	
1	Title Sheet & Location	
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6	Wing Wall Details	" " "
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11	Auxiliary Details	" " 1 of 2
12	Misc. Details	" " 1 of 2
13	" "	" " 2 of 2
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15	" "	" " 2 of 2



SCALE 1"=200'

PLANS PREPARED BY

MERLE E. SCHWAB

CIVIL ENGINEERS

— WICHITA —

RECOMMENDED FOR APPROVAL:

Merle E. Schwab Date May '57

Merle E. Schwab
CIVIL ENGINEERS

APPROVED:

COUNTY ENGINEER Date

APPROVED:

Date
For District Engineer, CORPS OF ENGRS., TULSA DISTRICT

APPROVED:

Date
For KANSAS STATE HIGHWAY COMMISSION,
Dept. of Secondary Roads.

PLANS AND SPECIFICATIONS REVIEWED AND APPROVED:

COUNTY COUNSELLOR Date

POT Sta 531+90.2
(N¼ Cor. Sec. 32)
Iron bar over stone on ℄
200.5 S to iron bar on ℄
200' N to iron bar on ℄

℄ Sta 51+60 = Detour PC Station
Begin Detour

Sta ___ Begin new conc. pavement

Sta 52+85
Construct 24" RCP Storm Sewer with Curb Inlet & Manhole Rt of Lt

Sta 54+37.03 – Construct Bridge No. 1
6 @ 10'x10'x60' R.C. Pressure Box (2-3 barrel units)
Equals Channel "Q" Sta. 1106+16.66
Existing 2-14"Sqm x 21.5 Rdwy Timb. Pile Br. to be removed.

Sta 55+17
Existing Storm Sewer appurtenances to be removed

POT Sta 55+90.2
Iron bar on ℄
30' NE to "X" cut on curb
30' NW to "X" cut on curb

Sta 57+00 End New conc. pavement

Scale
Horz. 1" = 50'
Vert. 1" = 5'

℄ Sta 52+30 equals Detour PI Sta 0+70
Δ = 90°00' Rt.
D = 91°10'

Detour PI Sta 3+66.19
equals ℄ Sta 55+50
Δ = 90°00' Rt D = 91°10'

℄ Sta 56+20 equals End Detour PI Sta 5+94.92

Concrete Encased Telephone Cable to remain in place.

℄ Detour
2" Surfacing Mat'l
5" Crown
Varies
Fill
Cut
TYPICAL DETOUR SECTION

County Bench Mark No. 3 Elev. 1320.00
60d Spike in Hl. P. 15' Lt Sta 52+70

Superelevate detour curves ½" per foot
Rotate around ℄

NOTE: Clearing and grubbing, as defined in Section 10 of the Stnd. Specifications, shall not be paid for directly, but shall be considered as subsidiary to other items of the work. There shall be no pay item for removal of trees or hedge for this contract.

Additional material as required for construction of approach fills shall be obtained from channels as directed by the Engineer, and will be paid for at the unit price for Common Excavation.

All utility lines and appurtenances are to be moved beyond the limits of construction by their owners prior to project construction unless otherwise noted. Utility companies shall provide for their own temporary channel crossings subject to approval by Engineer.

Detour PI Sta 1+78.73
Δ = 90°00' Lt D = 91°10'
(130' Rt ℄ Sta 52+50)

Detour PI Sta 4+57.46
Δ = 90°00' Lt D = 91°10'
(150' Rt ℄ Sta 55+50)

Ditch to drain
Width Widths
No. 2 - 2.0' CMP
2-60"x80" CMP
DETOUR PROFILE
Horz. 1" = 100'
Vert. 1" = 10'

Existing C.L.
+0.050%
200' V.C.
100' V.C.

Sta 68+00 Begin New Concrete Pavement

Existing Storm Sewer Outlet Lt Sta 73+90 to be removed.

Sta 72+88 Construct Bridge No. 2
16 @ 10'x10'x60' RC Pressure Box
(6-4 Barrel Units)
Equals Channel "B" Sta 1109+56.44

Sta 78+00 End New Concrete Pavement

PI Sta 80+41.6 (Center Sec 29)
Deflection 0°-06' Rt.
Iron over stone
24.3 NW to 3 nails in H.P.
46.0 NE to 3 nails in T.P.
73.9 SE to 3 nails in T.P.
25.0 E to "X" cut on curb

℄ Sta 70+32 equals Detour PC Sta 0+00

℄ Sta 76+65 equals End Detour PT Sta 10+26.3

¼ Sec. Line
ARKANSAS AVE.
Existing Curb
New Curb
24" RCP Storm Sewer
39th Street

Sta 68+00 to Sta 78+00
Remove existing asphalt pavement and conc. curb & gutter.

℄ Sta 71+22 equals Detour PI Sta 0+90
Δ = 90°00' Rt
D = 67°30'
R = 7.90.0'

℄ Sta 73+15 equals Detour PI Sta 9+85
Δ = 90°00' Rt
D = 67°30'

Sta 73+90 Existing Storm Sewer & appurtenances to be removed.

Sta 76+00 Construct 24" RCP Storm Sewer with curb inlets Rt & Lt and manhole Lt. See Sheet 12 for details.

Bench Mark No. B-6 Elev. 1322.32
Standard Monument 19' Lt Sta 72+71

2" Surfacing Mat'l
11'-0" ℄ detour
3" crown
11'-6"
Fill
Cut
TYPICAL DETOUR SECTION

Superelevate detour curves ½" per ft
Rotate around ℄

Ditches to drain to 12" CMP

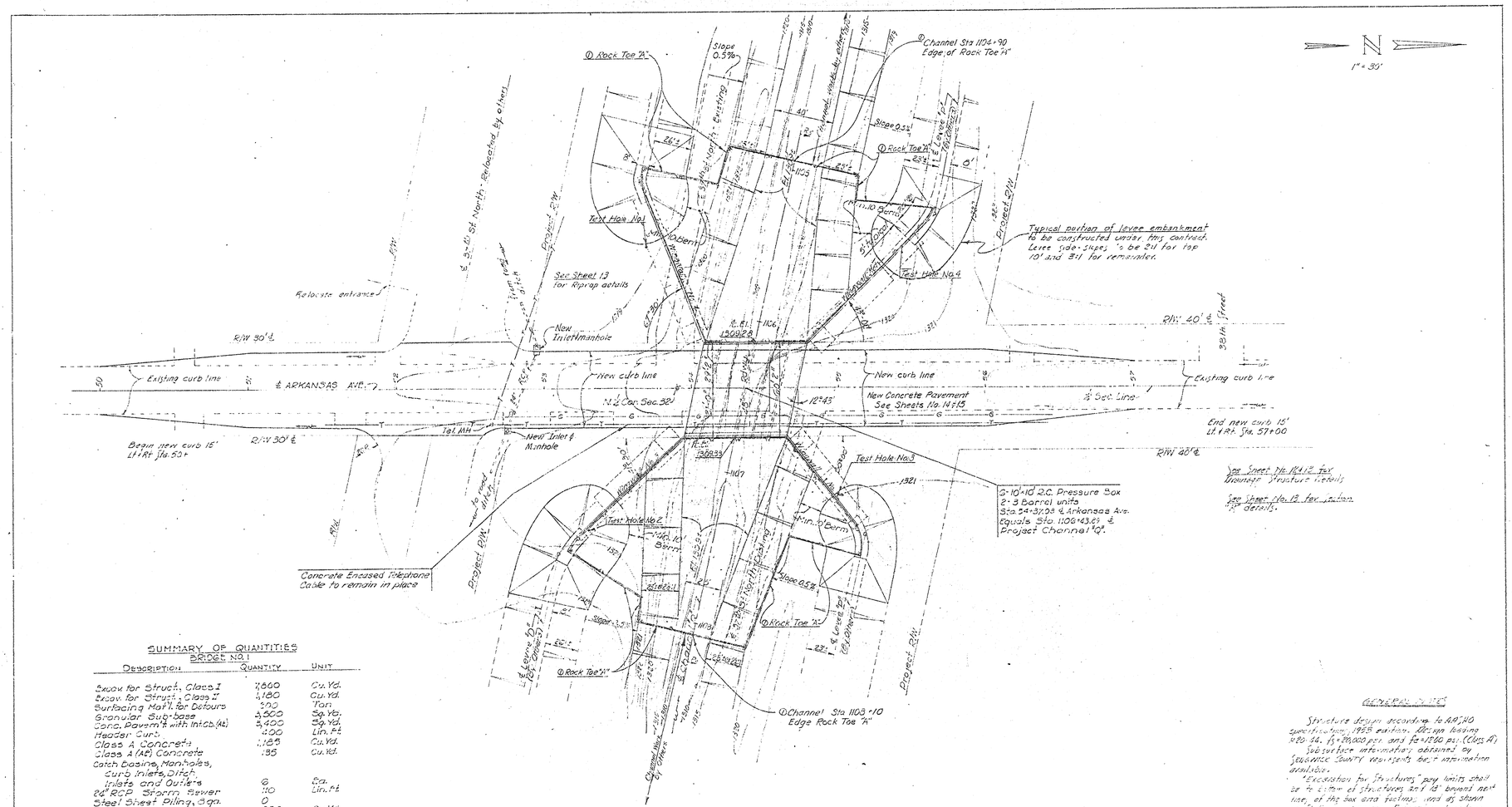
DETOUR PROFILE
Horz. 1" = 100'
Vert. 1" = 10'

Existing C.G.
+0.133%
-0.200%
150' V.C.
100' V.C.

Detour PI Sta 2+43.9
(200' Rt ℄ Sta 71+22)
Δ = 90°00' Lt
D = 67°30'

Detour PI Sta 7+39.7
(200' Rt ℄ Sta 75+78)
Δ = 90°00' Lt
D = 67°30'

PLATE 2 --PLAN PROFILE O.P.R. & R.C. STANDARD
FREDERICK POST CO. CHICAGO



SUMMARY OF QUANTITIES
BRIDGE NO. 1

Description	Quantity	Unit
Excav. for Struct., Class I	7,600	Cu. Yd.
Excav. for Struct., Class II	1,180	Cu. Yd.
Surfacing Mat'l. for Detours	200	Ton
Granular Sub-base	1,600	Sq. Yd.
Conc. Pavem't with Integ.(AE)	5,400	Sq. Yd.
Header Curb	200	Lin. Ft.
Class A Concrete	1,155	Cu. Yd.
Class A (AE) Concrete	135	Cu. Yd.
Catch Basins, Manholes, Curb Inlets, Ditch Inlets and Outlets	6	Ea.
24" RCP Storm Sewer	110	Lin. Ft.
Steel Sheet Piling, 3 ga.	0	
18" Dumped Riprap	850	Cu. Yd.
6" Gravel Backing	300	Cu. Yd.
6" Sand Backing	300	Cu. Yd.
Reinforcing Steel	178,870	Lb.
Construction of Detours		Lump Sum
Water Stops, Copper	560	Lin. Ft.
Water	50	M Gal.
Levee Embankment	2,100	Cu. Yd.
Removal of Existing Structs.		Lump Sum
Removal of Existing Pavem't.		Lump Sum

GENERAL NOTES

Structure design according to AASHO specifications, 1953 edition. Design loading H20-S16. f_c = 2,000 psi, and f_s = 18,000 psi. (Class A)

Subsurface information obtained by Sedgwick County Materials Dept. Information available.

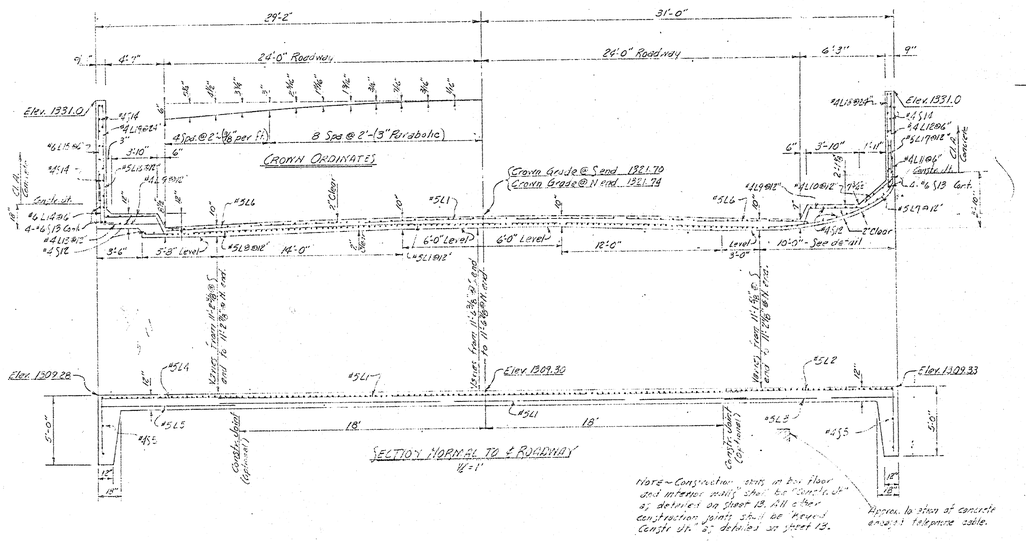
"Excavation for Structures" pay limits shall be to bottom of structures and 18" beyond neat line of the box and footings, and as shown on "Side or Wing-walls". Excavation boundary plane shall be Elev. 1309 with Class I Exc. above this plane and Class II below.

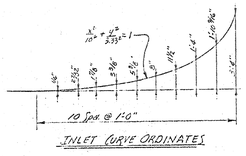
REVISIONS:
① Rip-Rap Limits Extended 5/28/57
② Levee Embankment Increased 5/29/57

BRIDGE CONSTRUCTION
-FOR-
SEDGWICK COUNTY, KANSAS
CONSTRUCTION LAYOUT
BRIDGE NO. 1

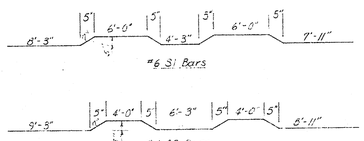
MERLE E. SCHWAB
CIVIL ENGINEERS
—WICHITA—

3





INLET CURVE ORDINATES

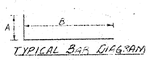


BAR	SIZE	A x B ①	LENGTH	NO.
S1	#6	②	34'-9"	52
S2	#6	②	34'-9"	56
S3	#5	Straight	34'-0"	116
S4	#5	"	34'-0"	116
S5	#4	"	32'-0"	154
S6	#5	"	7'-0"	396
S7	#6	3'-0" x 5'-0"	8'-0"	284
S8	#6	3'-0" x 3'-0"	6'-0"	568
S9	#4	3'-6" x 8'-0"	10'-6"	144
S10	#6	Straight	9'-0"	288
S11	#5	3'-0" x 12"	4'-0"	144
S12	#4	Straight	34'-0"	52
S13	#5	"	34'-0"	16
S14	#4	"	34'-0"	78
S15	#9	3'-0" x 3'-0"	6'-0"	144
S16	#6	5'-3" x 12"	4'-0"	144
S17	#4	Straight	7'-0"	10
S18	#4	3'-0" x 6'-0"	9'-0"	8
S19	#6	Straight	7'-0"	144
L1	#5	Straight	39'-0"	196
L2	#5	12'-6" x 4'-0"	16'-6"	55

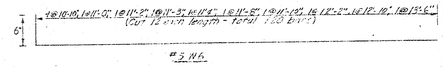
BAR	SIZE	A x B ①	LENGTH	NO.
L3	#5	Straight	12'-6"	58
L4	#5	11'-0" x 5'-0"	15'-0"	58
L5	#5	Straight	11'-0"	58
L6	#5	"	7'-0"	140
L7	#5	"	14'-5"	140
L8	#5	"	21'-5"	140
L9	#6	1'-2" x 4'-3½"	5'-5"	140
L10	#6	Straight	5'-5"	70
L11	#6	"	9'-5"	56
L12	#6	"	6'-6"	196
L13	#6	"	5'-6"	70
L14	#6	1'-6" x 3'-6"	5'-6"	132
L15	#6	Straight	8'-0"	132
L16	#5	"	4'-0"	72
L17	#5	"	5'-6"	72
L18	#4	"	6'-6"	52
L19	#4	"	8'-0"	52
L20	#5	4'-0" x 13'-1"	17'-1"	18
L21	#5	Straight	13'-0"	52

BAR	SIZE	A x B ①	LENGTH	NO.
L1	#5	Straight	20'-9"	8
W1	#7	2'-0" x 11'-2"	13'-2"	116
W2	#7	2'-0" x 11'-2"	13'-2"	116
W3	#7	11'-0" x 10'-10"	12'-4"	116
W4	#7	1'-0" x 10'-10"	11'-4"	116
W5	#5	2' x 10'-10"	11'-4"	584
W6	#5	2'	②	120
W7	#5	6" x 11'-6"	12'-0"	30
W8	#9	2'	2'	20
W9	#7	2'	2'	20
W10	#6	2'	2'	20
W11	#8	2'	2'	20
W12	#7	2'-0" x 12'-0"	14'-0"	12
W13	#7	2'-0" x 12'-0"	14'-0"	12
W14	#6	1'-6" x 11'-8"	12'-10"	12
W15	#5	1'-6" x 11'-8"	12'-10"	12
W16	#5	1'-6" x 3'-5½"	4'-9"	12
S1	#6	Straight	11'-0"	44
B2	#6	"	39'-5"	28
B3	#6	"	12'-9"	152

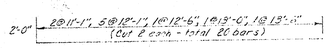
① See typical diagram below.
② See special diagrams



TYPICAL BAR DIAGRAM



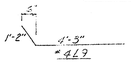
#3 W6



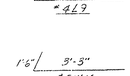
#9 W8 & #9 W9



#6 W10 & #6 W11



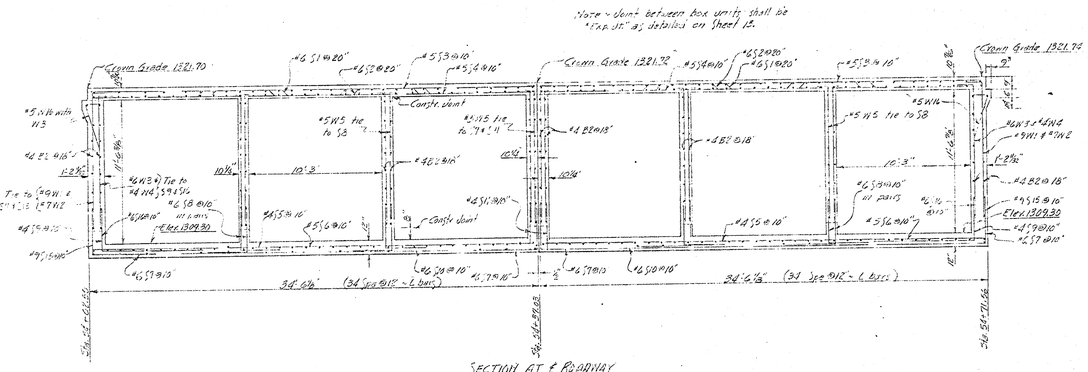
#4 L7



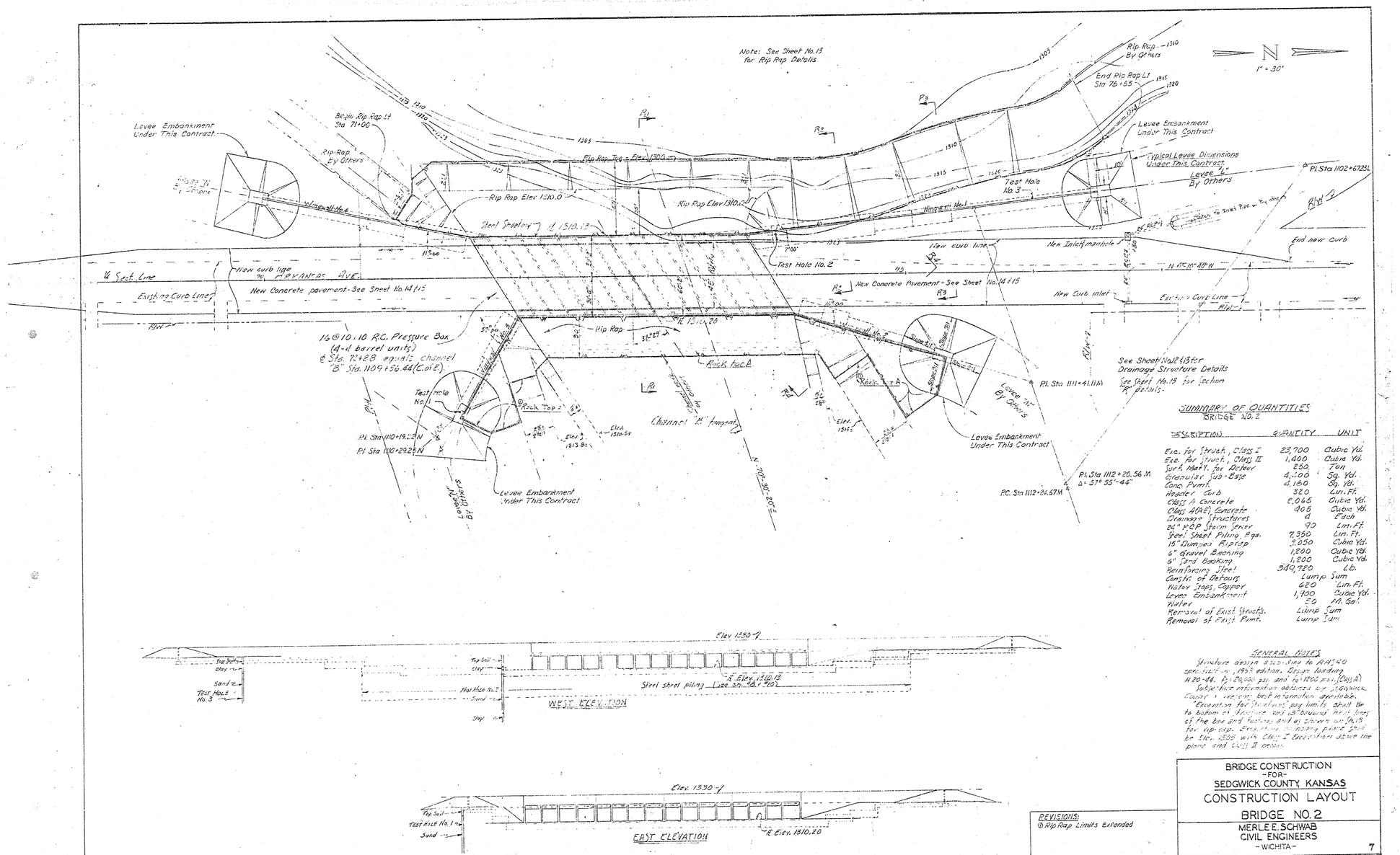
#5 W16

GENERAL NOTES

Use Class A Concrete throughout except slope, A.S.T.M. for retaining slabs and wings. Bevel exposed edges with ¾" triangular strips. Unless otherwise noted, reinforcing steel are centered in center, center to center of bars shall be 3" unless shown otherwise. Where shown, the cover shall be 2". Provide minimum of 12" of soil cover over top of culvert for heavy traffic control.



BRIDGE CONSTRUCTION
-FOR-
SEDGWICK COUNTY, KANSAS
BOX SECTIONS
BRIDGE NO. 1
MERLE E. SCHWAB
CIVIL ENGINEERS
-WICHITA-



SUMMARY OF QUANTITIES
BRIDGE NO. 2

DESCRIPTION	QUANTITY	UNIT
Exc. for Struct., Class I	23,700	Cubic Yd.
Exc. for Struct., Class II	1,400	Cubic Yd.
Surf. Matl. for Detour	220	Ton
Granular Sub-Base	4,400	Sq. Yd.
Conc Pvmt.	4,150	Sq. Yd.
Header Curb	320	Lin. Ft.
Class A Concrete	2,065	Cubic Yd.
Class A(AE) Concrete	405	Cubic Yd.
Drainage Structures	4	Each
24" RCP Storm Sewer	90	Lin. Ft.
Steel Sheet Piling, Typ.	7,350	Lin. Ft.
15" Dumped Riprap	3,050	Cubic Yd.
6" Gravel Backing	1,200	Cubic Yd.
6" Sand Backing	1,200	Cubic Yd.
Reinforcing Steel	340,780	Lb.
Constr. of Detours	1	Lump Sum
Water Inlet Gutter	620	Lin. Ft.
Levee Embankment	1,900	Cubic Yd.
Water	50	M. Gal.
Removal of Exist Structs.	Lump Sum	
Removal of Exist Pvmt.	Lump Sum	

GENERAL NOTES

Structure design according to AASHTO specifications, 1953 edition. Design loading H20-44, f_c = 2,000 psi and f_s = 18,000 psi. (Class A) Subsurface information obtained by Sedgwick County's various test information available.

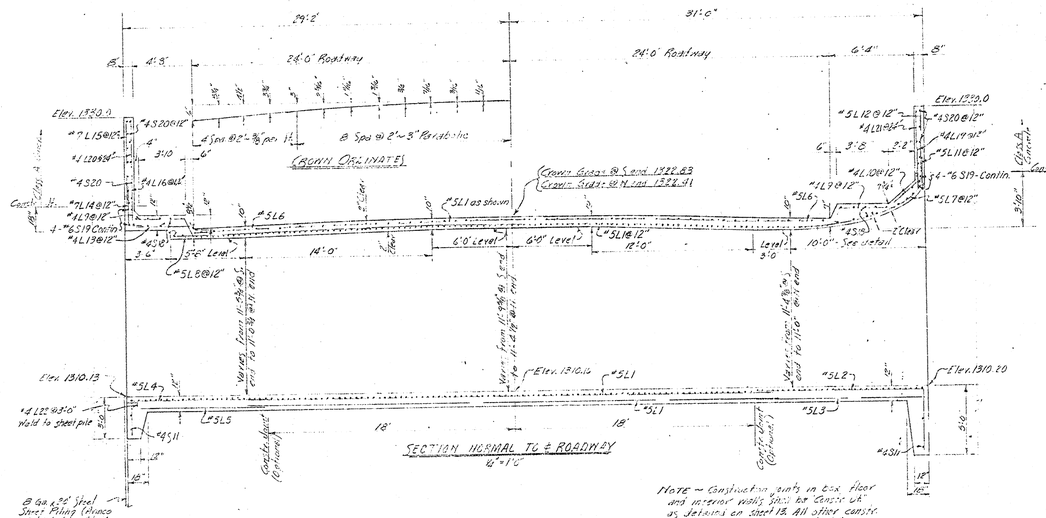
"Excavation for Structures" pay limits shall be to bottom of foundation and 18" beyond neat lines of the box and footings and as shown on Sht. 13 for Rip-Rap. Excavation in rocky points shall be Elev. 1295 with Class I Excavation above the plane and Class II below.

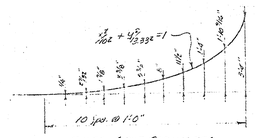
REVISIONS:
① Rip Rap Limits Extended

BRIDGE CONSTRUCTION
-FOR-
SEDGWICK COUNTY, KANSAS
CONSTRUCTION LAYOUT
BRIDGE NO. 2

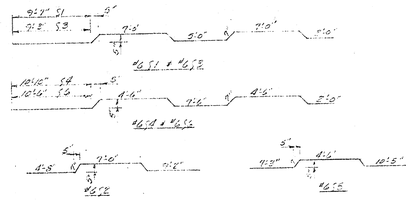
MERLE E. SCHWAB
CIVIL ENGINEERS
- WICHITA -

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INLET CURVE ORDINATES

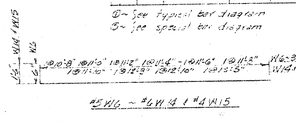


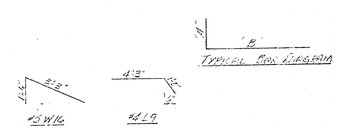
BAR	SIZE	S. & B @	LENGTH	NO.
S1	#6	@	32'-11"	56
S2	#6	@	33'-2"	112
S3	#6	@	32'-7"	56
S4	#6	@	31'-6"	56
S5	#4	@	23'-9"	112
S6	#6	@	31'-2	56
S7	#5	Straight	58'-0"	232
S8	#5	"	14'-6"	232
S9	#5	"	58'-0"	232
S10	#5	"	26'-6"	232
S11	#4	"	27'-0"	406
S12	#5	"	4'-0	1208
S13	#4	3'-0" x 3'-6"	7'-6"	432
S14	#6	3'-0" x 3'-0"	62'-0	1728
S15	#3	3'-8" x 7'-0"	14'-3	144
S16	#5	Straight	9'-0"	216
S17	#4	"	3'-0"	432
S18	#4	"	7'-1"	508
S19	#4	"	29'-8"	66
S20	#3	"	21'-6"	168
S21	#5	"	28'-3	10
S22	#5	"	17'-3	10
S23	#5	"	6'-0"	10
S24	#5	"	23'-0"	10

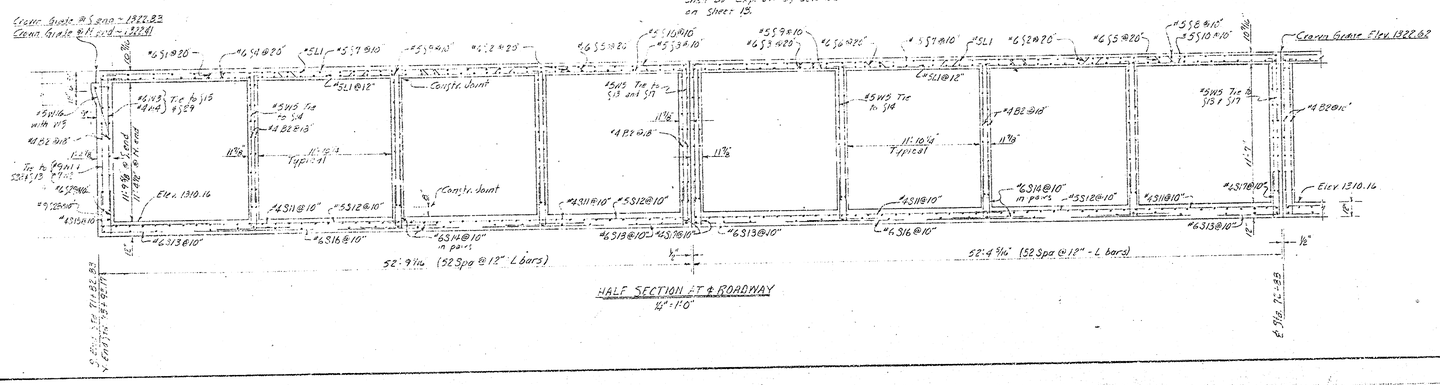
BAR	SIZE	A x B @	LENGTH	NO.
S25	#4	2'-0" x 4'-0"	6'-0"	3
S27	#6	Straight	6'-0"	168
S28	#9	1'-6" x 3'-0"	9'-0"	144
S29	#6	Straight	8'-0"	140
X1	#4	Straight	15'-6"	7
E1	#4	Straight	13'-0"	340
B8	#4	"	15'-0"	300
B3	#4	"	15'-0"	300
K1	#6	2'-0" x 2'-6"	8'-12"	116
W2	#5	2'-0" x 17'-2"	15'-10"	111
W3	#6	1'-6" x 10'-6"	12'-0"	15
W4	#4	1'-6" x 10'-6"	12'-0"	115
W5	#5	1'-6" x 10'-6"	11'-3"	2050
W6	#6	@	@	350
W7	#5	1'-6" x 11'-5"	13'-1"	180
W8	#9	2'-0" x 11'-10"	18'-10"	10
W9	#7	2'-6" x 11'-10"	15'-10"	10
W10	#6	1'-6" x 11'-5"	12'-11"	10
W11	#4	1'-6" x 11'-5"	12'-11"	10
W12	#9	@	@	19
W13	#7	@	@	10
W14	#6	@	@	50

BAR	SIZE	A x B @	LENGTH	NO.
W15	#6	@	@	20
W16	#6	@	4'-9"	114
L1	#5	Straight	45'-0"	242
L2	#5	4'-6" x 15'-0"	19'-0"	76
L3	#5	Straight	15'-0"	174
L4	#5	2'-6" x 12'-0"	15'-6"	172
L5	#5	Straight	15'-0"	153
L6	#5	"	7'-11"	212
L7	#5	"	12'-8"	212
L8	#5	"	7'-6"	212
L9	#4	@	51'-0"	274
L10	#4	Straight	5'-6"	212
L11	#5	"	5'-10"	212
L12	#5	"	6'-8"	212
L13	#4	"	5'-10"	212
L14	#7	1'-5" x 3'-6"	5'-0"	212
L15	#7	Straight	46'-0"	212
L16	#4	"	42'-0"	15
L17	#5	2'-3" x 15'-0"	44'-6"	15
L18	#5	Straight	16'-0"	15
L19	#4	"	3'-6"	212
L20	#4	"	4'-0"	106
L21	#4	"	5'-0"	106
L22	#4	0'6" x 1'-0"	1'-6"	150

@ See typical bar diagram
@ See special bar diagram







GENERAL NOTES

Use Class A Concrete throughout except Class A(AE) for retaining walls and wings. Bevel exterior edges with 3/4 triangle moldings.

Dimensions for reinforcing steel are center to center except at bending diagrams, where dimensions are out to out of bars. Provide minimum 2" cover and maximum 3" cover for bars unless otherwise noted.

BRIDGE CONSTRUCTION
-FOR-
SEDGWICK COUNTY, KANSAS
BOX SECTIONS
BRIDGE NO. 2

MERLE E. SCHWAB
CIVIL ENGINEERS
-WICHITA-

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