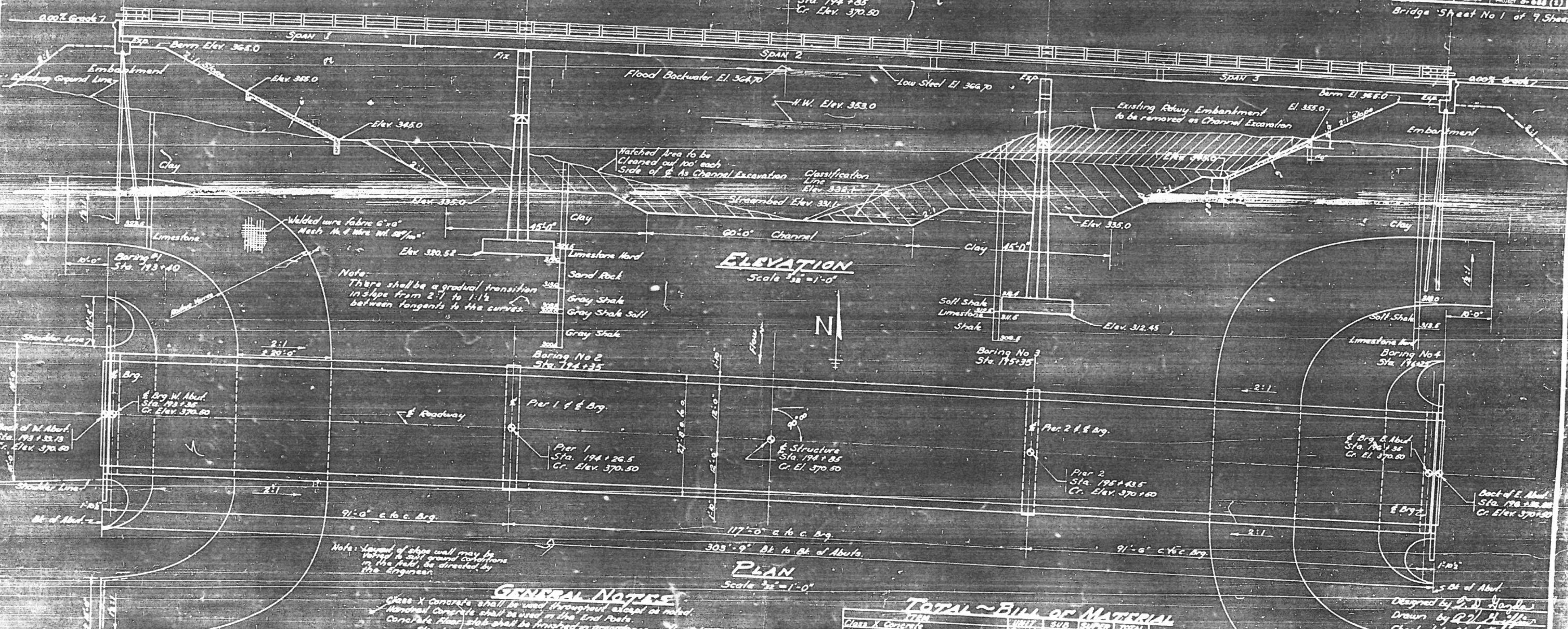
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
693	22B	GALLATIN	18	10
FED. RD. DIST. NO. 7		ILLINOIS	PROJECT S-688 (2)	

Bridge Sheet No 1 of 9 Sheets

Existing Structure
Total Length 266'-0", 14' Rdwy, Wood Fl.
Sub - 5 Bents consist of 2 posts of 3'-6" Ls. 1 Bent of Double Posts, all bents on Mud Sills, 2 Piers 3 2'-6" Steel Cylinders filled with concrete.
Super - 8 Simple Spans, composed of 5-8" I Beams and 2-8" Ls, 1 - Pony Truss, 80' Long, 9'-0" Deep, Simple Spans 6 @ 24'-0", 1 @ 20' and one @ 22'; Handrail - 2-4" Ls.



GENERAL NOTES

Class X Concrete shall be used throughout except as noted.
Handrail Concrete shall be used in the End Posts.
Concrete Floor slab shall be finished in accordance with Art. 21.18 (a) of the Standard Specs. and shall be poured in one continuous operation on either side of the longitudinal construction joints.
All Connections shall be riveted except as noted.
All Rivets ¾" ø and open holes 13/16" except as noted.
All I-Beam Splices shall be subpunched, reamed, and match marked. For ¾" ø rivets subpunch to 11/16", ream to 13/16". All I-Beams shall be shop assembled to their proper grade and alignment with or without diaphrams, inspected and reamed while so assembled.

Anchor bolts shall be set before riveting diaphragms over piers and abutments.
Welding shall comply with Art. 35.4 (a) of the Standard Specs.
All Metal Handrail including Railpost Anchors, is included for payment as Metal Handrail. The number of lineal feet is measured face to face of Concrete Posts.
Two 12 Test piles shall be driven in permanent location, as directed by the Engineer, before ordering the remainder of the piling.
Boring Data are shown on the drawing only as a guide to the bidders in estimating soil conditions which may be encountered in the field.
Before the superstructure is placed and after the abutment piles are driven, the Embankment shall be constructed in accordance with Art. [illegible] of the Stand'd Specifications and as directed by the Engineer.

TOTAL ~ BILL OF MATERIAL

ITEM	UNIT	SUB	SUPER	TOTAL
Class X Concrete	Cu. Yds.	420.6	227.0	647.6
Handrail Concrete	Cu. Yds.		1.1	1.1
Slope Walls	Sq. Yds.	932		932
Reinforcement Bars	Lbs.	36,200	36,270	72,470
Structural Steel	Lbs.		[illegible]	[illegible]
Metal Handrail	Lin. Ft.		581.8	581.8
Name Plate	Each		1	1
Class "A" Excavation for Structures	Cu. Yds.	132		132
Class "B" Excavation for Structures	Cu. Yds.	687		687
Channel Excavation	Cu. Yds.			7445
14" Metal Shell C.I.P. Conc. Piles	Lin. Ft.	516		516
Test Piles	Each	2		2
Rock Excavation	Cu. Yds.	16.0		16.0
Removal of Existing Structures	Each			1

WATERWAY INFORMATION

Drainage Area — 262,000 Acres
Character — Flat, cultivated
Present Opening — 2670 Sq. Ft.
Proposed Opening — 3600 Sq. Ft. *
Required Opening — 8000 Sq. Ft.
Flood Frequency (class & road) 10 Yrs.
Assumed "c" (Talbot) 0.31

* Agreed to by [illegible] of waterway on assumption of responsibility by the County.
Approved 12/21/54
[signature]

DESIGN STRESSES

fs 18,000 #/□" (Struct.)
fs 20,000 #/□" (Reinf.)
fc 1,400 [illegible]
[illegible]
Loading H-15-S12

STATION 194+85
NORTH FORK SALINE RIVER
BUILT 1955
F.A.S. RT. 893 SEC. 22-B
F.A.S. PROJECT S-688(2)
LOADING H-15-S-12

LETTERING FOR NAME PLATE

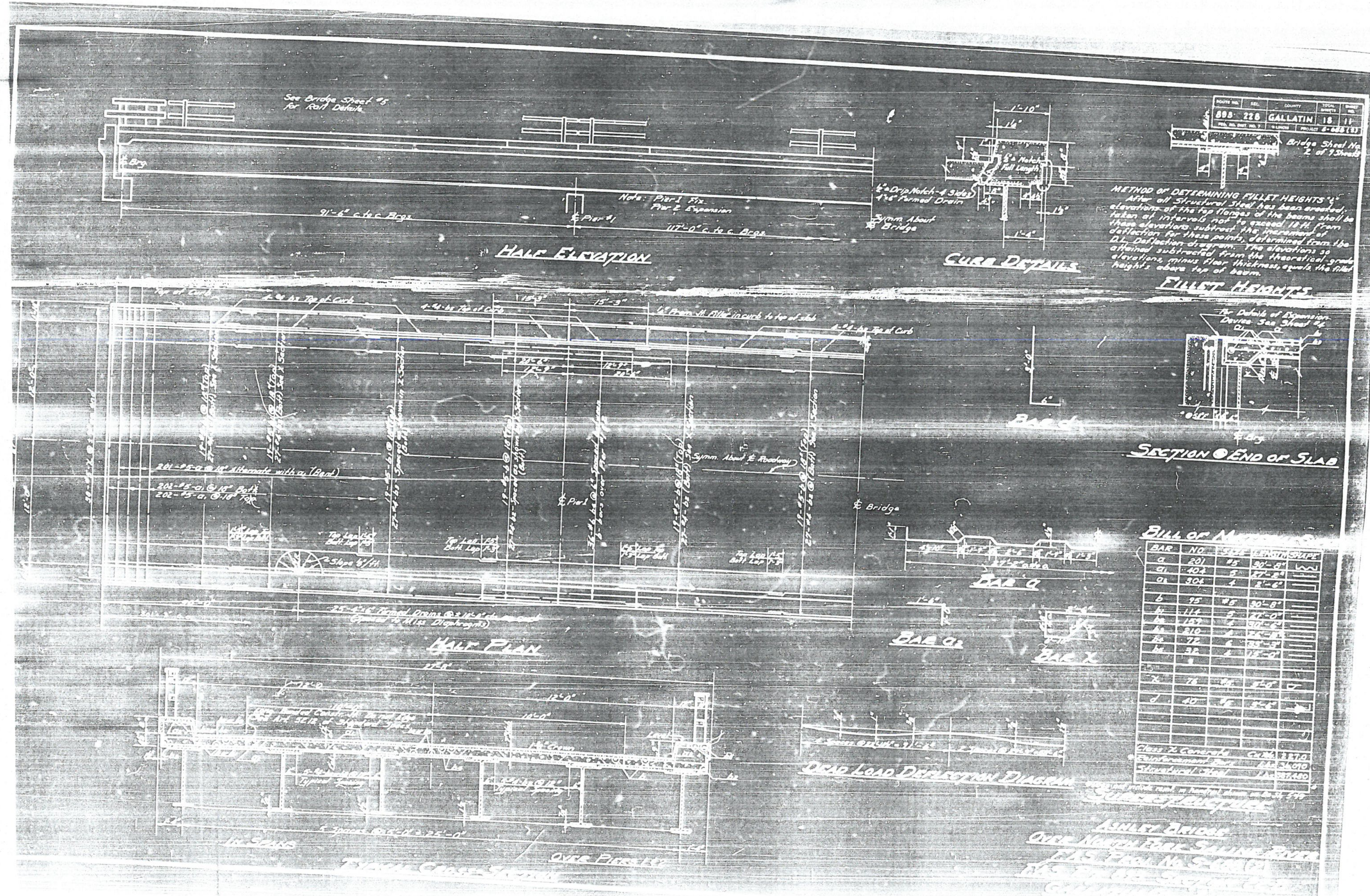
See Standard [illegible]

Designed by [signature]
Drawn by [signature]
Checked by [signature]

STRUCTURAL DESIGN & PLANS
BY
C.K. WILLETT CONSULTING ENGINEERS
DIXON ILLINOIS
FOR
ROBERT BROWN
CONSULTING ENGINEERS
HARRISBURG ILLINOIS.

GENERAL PLAN & ELEVATION

ASHLEY BRIDGE
OVER NORTH FORK SALINE RIVER
F.A.S. PROJ. No. S-688(2)
F.A.S. RT. 893 SECTION 22-B
GALLATIN CO. ILLINOIS


ROUTE NO. 898 SEC. 228 COUNTY GALLATIN TOTAL SHEETS 18 SHEET NO. 11
FED. RD. DIST. NO. 7 ILLINOIS PROJECT S-668 (2)
Bridge Sheet No. 2 of 9 Sheets
See Bridge Sheet #5 for Rail Details
Note: Pier 1 Fix. Pier 2 Expansion
91'-6" c. to c. Brgs.
117'-0" c. to c. Brgs.
Symm About Bridge
HALF ELEVATION
CURB DETAILS
METHOD OF DETERMINING FILLET HEIGHTS
After all Structural Steel has been erected, elevations of the top flanges of the beams shall be taken at intervals not to exceed 10 ft. From these elevations subtract the increment of deflection for these points, determined from the D.L. Deflection diagram. The elevations so attained subtracted from the theoretical grade elevations, minus floor thickness, equals the fillet heights above top of beam.
FILLET HEIGHTS
For Details of Expansion Device See Sheet #4
SECTION @ END OF SLAB
Symm About Roadway
HALF PLAN
BAR a
BAR a2
BAR X
BAR d
BILL OF MATERIAL
Class X Concrete Cu. Yd. 327.0
Reinforcement Bars Lbs. 36,010
Structural Steel Lbs. 387,480
DEAD LOAD DEFLECTION DIAGRAM
TYPICAL CROSS SECTION
SUPERSTRUCTURE
ASHLEY BRIDGE
OVER NORTH FORK SALINE RIVER

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
893	22.8	GALLATIN	18	12
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

Bridge Sheet No 3 of 9 Sheets

301'-0" c. to c. Brgs.

117'-0" c. to c. Brgs.

91'-6" c. to c. Brgs.

91'-6" c. to c. Brgs.

℄ End of Bms.

21'-2" | 21'-2" | 25'-0" | 24'-2" | 29'-3" | 29'-3" | 29'-3" | 24'-2" | 25'-0" | 21'-2" | 21'-2"

1 2 3 4 5 6

All Bms 36 WF 182

Note: All Bms on 4.16% Grade

℄ Abut. ℄ Brg. 1 & Diaphragms

End of Bms.

66'-6" | 25'-4" | 66'-0" | 25'-6" | 25'-6" | 66'-6"

℄ Field Splice | ℄ Pier 1 | ℄ Field Splice | ℄ Field Splice | ℄ Pier 2 | ℄ Field Splice

℄ Abut. ℄ Brg. 1 & Diaphragms

End of Beam.

PLAN OF STRUCTURAL STEEL

12' | 2 Spa @ 5'-1 1/2" = 10'-3" | 2 Spa @ 5'-1 1/2" = 10'-3" | 12'

Clip

Diaphragm D1

Diaphragm D2

Span 1 or 3

Span 2

1'-6"

PLAN

36 WF 182

℄ Bearing

℄ Abut.

End of Beam

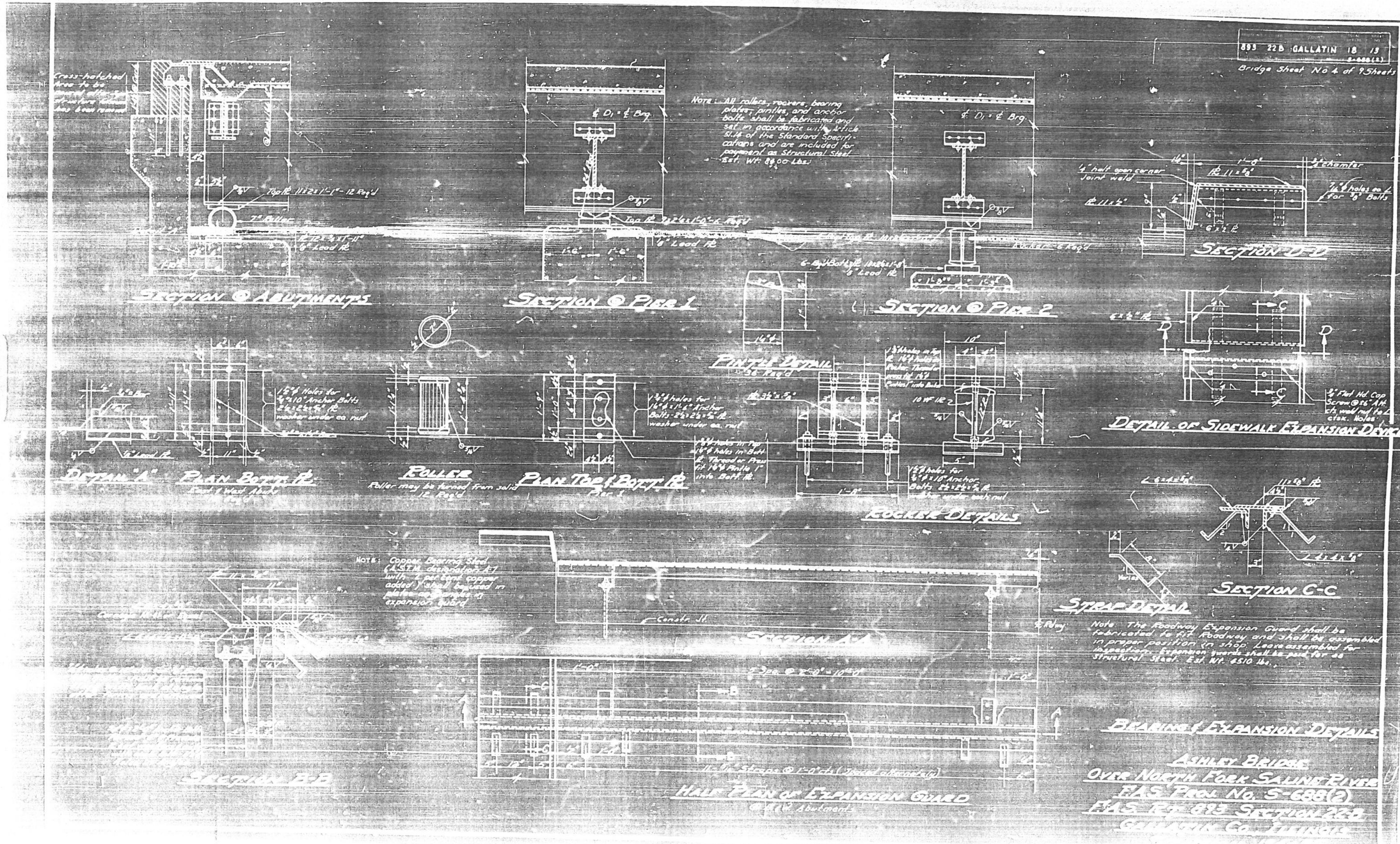
SLAB REINFORCEMENT DETAIL

EXT. DIAPHRAGMS

INTERIOR DIAPHRAGMS

DIAPHRAGM DETAILS

CONCRETE RAIL



893 22B GALLATIN 18 13
Bridge Sheet No 4 of 9 Sheets
Note: All rollers, rockers, bearing plates, pintles, and anchor bolts shall be fabricated and set in accordance with Article 51.14 of the Standard Specifications and are included for payment as Structural Steel. Est. Wt. 8600 Lbs.
SECTION @ ABUTMENTS
SECTION @ PIER 1
SECTION @ PIER 2
SECTION D-D
PINTLE DETAIL
DETAIL OF SIDEWALK EXPANSION DEVICE
DETAIL "A"
PLAN BOTT. PL.
ROLLER
Roller may be turned from solid
PLAN TOP & BOTT. PL.
ROCKER DETAILS
SECTION C-C
STRAP DETAIL
Note: Copper Bearing Steel (A.S.T.M. designation A7 with .2 per cent copper added) shall be used in plates and angles of expansion guard
SECTION A-A
Note: The Roadway Expansion Guard shall be fabricated to fit Roadway and shall be assembled in proper position in shop. Leave assembled for inspection. Expansion guards shall be paid for as Structural Steel. Est. Wt. 6510 lbs.
SECTION B-B
HALF PLAN OF EXPANSION GUARD
BEARING & EXPANSION DETAILS
ASHLEY BRIDGE
OVER NORTH FORK SALINE RIVER
F.A.S. PROJ. NO. S-688(2)
F.A.S. RT. 893 SECTION 22-B
GALLATIN CO. ILLINOIS

303 228 GALLATIN 18 14
S-008(3)
Bridge. Sheet No 5 of 95 sheets

ELEVATION
Showing Inside Face of Rail

PLAN

ELEVATION
END POST

PLAN

ELEVATION
Showing Reinforcement

SECTION C-C

BILL OF MATERIAL

BAR	NO	SIZE	LENGTH	SHAPE
Handrail Rail complete				L.F.
Reinforcement Bars				LBS.
Nickel Plated Steel				

HANDRAIL DETAIL

SECTION A-A

ELEVATION
Detail C

SECTION B-B

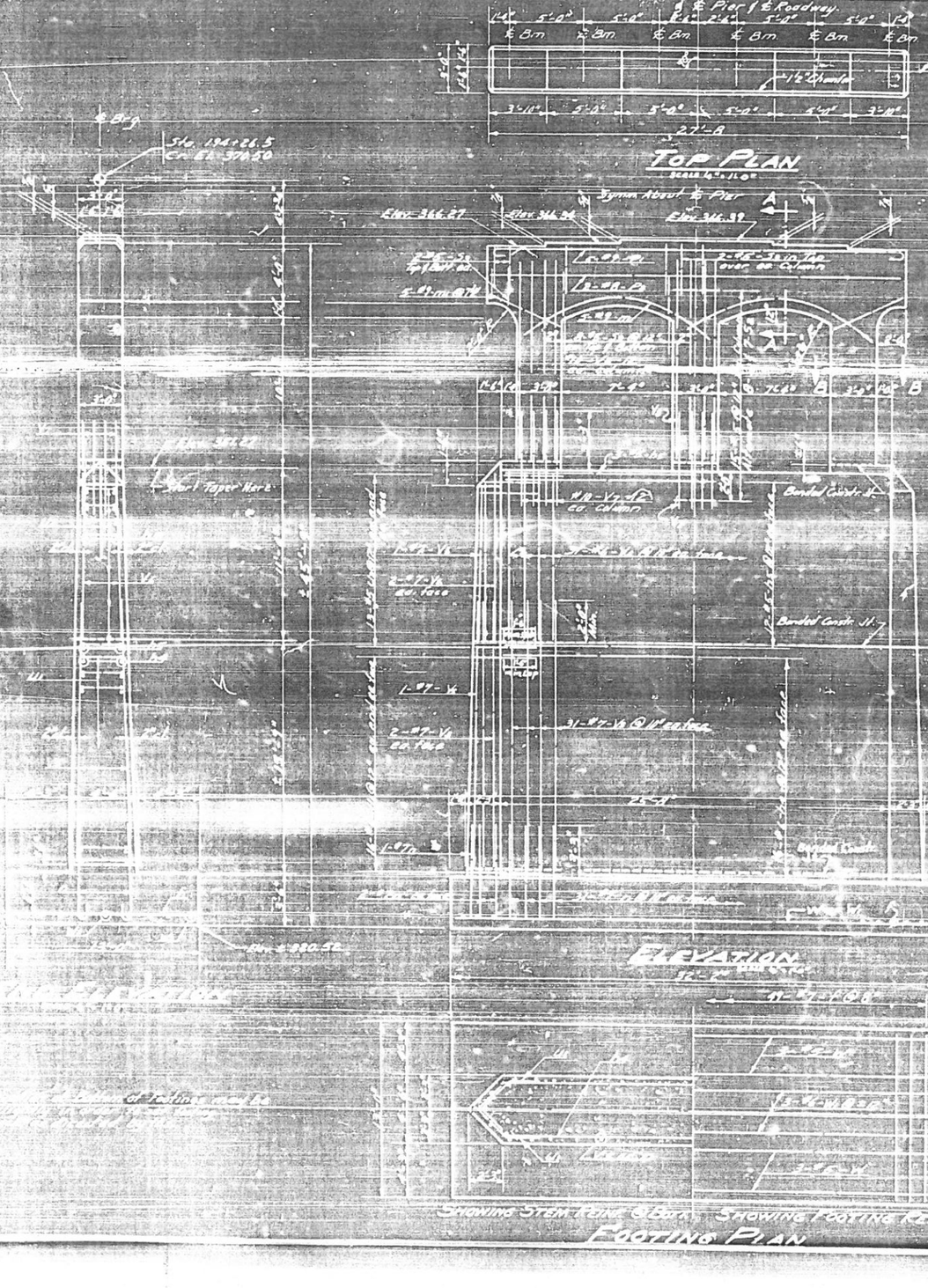
CAP DETAIL

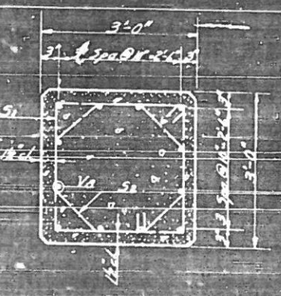
DETAIL B

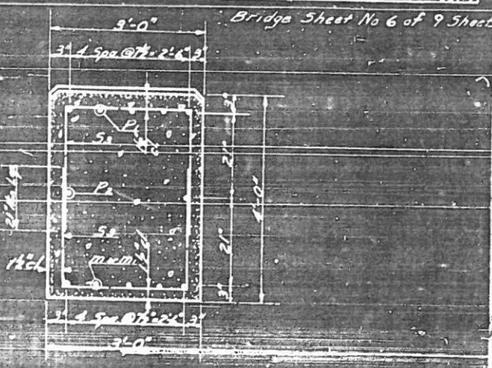
ANCHOR DETAILS FOR RAIL POST

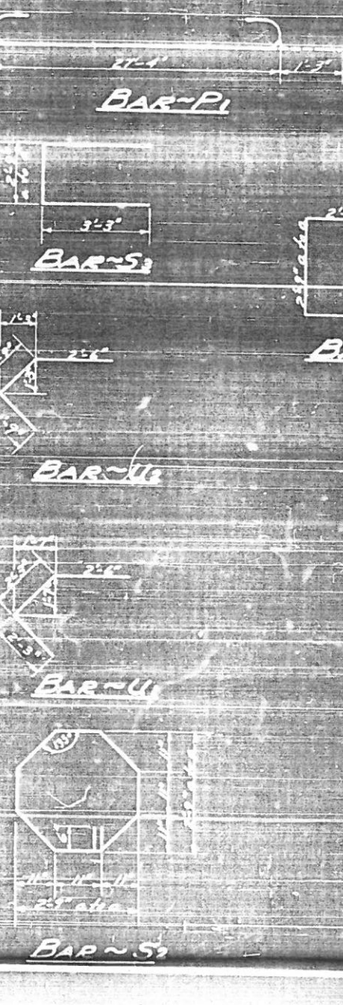
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
893	22B	GALLATIN	18	15
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT	S-688(2)	

Bridge Sheet No 6 of 9 Sheets









BILL OF MATERIAL - PIER #1

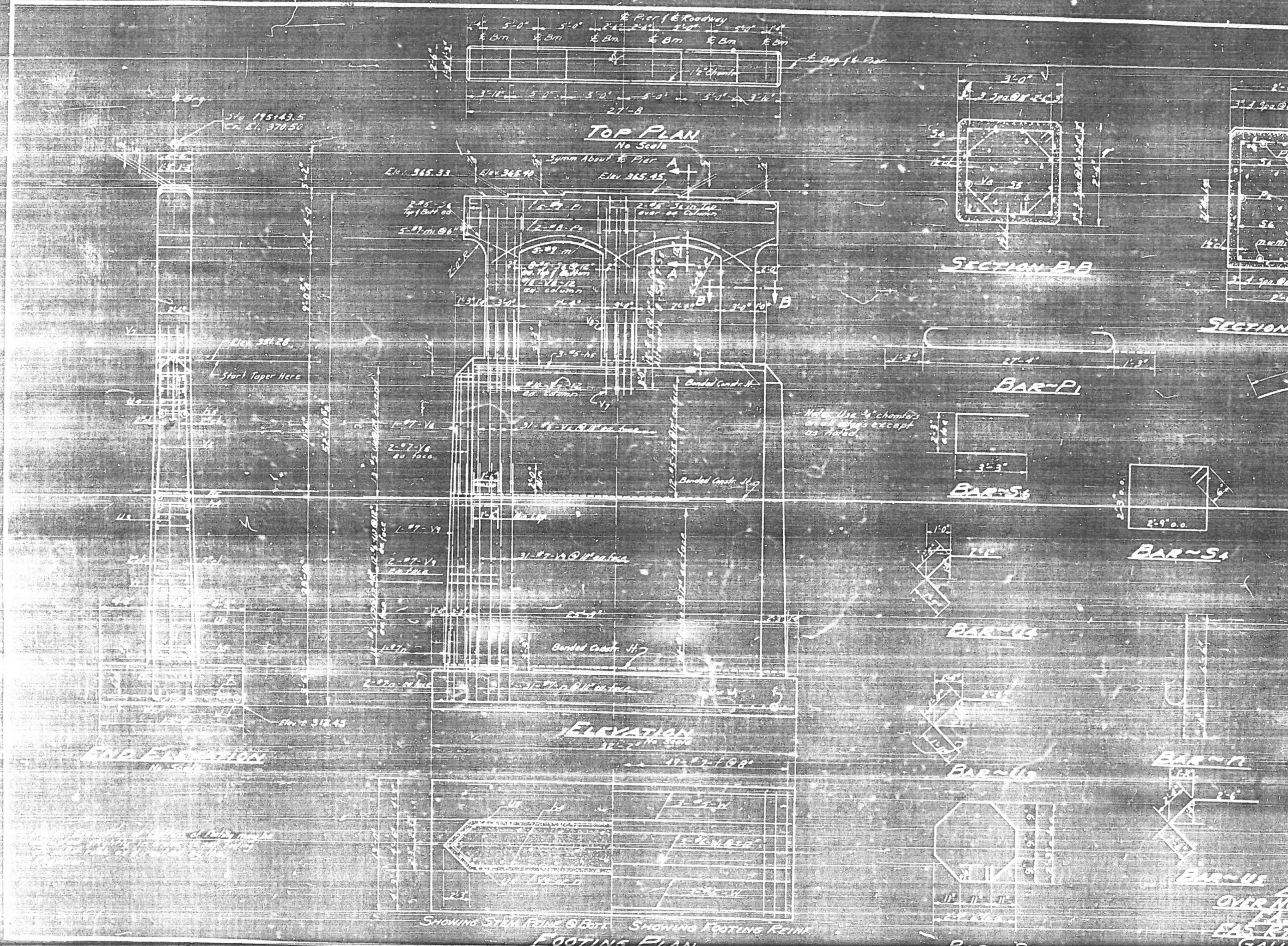
BAR	NO	SIZE	LENGTH	SHAPE
h1	32	#6	25'-4"	
h2	27	5	25'-2"	
P1	5	#7	29'-10"	
P2	2	8	27'-4"	
V1	72	#7	11'-9"	
V2	72	8	11'-4"	
V3	36	10	4'-4"	
V4	36	10	13'-0"	
U1	64	#6	7'-0"	
U2	52	5	6'-0"	
M	10	#7	13'-4"	
M1	10	9	4'-4"	
N	72	7	7'-4"	
S1	24	5	12'-0"	
S2	27	5	3'-11"	
S3	36	5	4'-3"	
W	5	#9	3'-9"	
W1	3	8	3'-9"	
F	35	7	18'-6"	

Class X Concrete		C.Y.	142.4
Reinforcement Bars		Lbs.	M990
Class A Epoxy #6		C.Y.	66
Class A Epoxy #5		C.Y.	3.1
Pre-Stressing		C.Y.	18.5

PIER #1
ASHLEY BRIDGE
OVER NORTH FORK SALINE RIVER
F.A.S. PROJ. NO. S-688(2)
F.A.S.RT. 893 - SECTION 22-B
GALLATIN CO., ILLINOIS
STATION 194+26.5

ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
893	22B	GALLATIN	18	16
FED. RD. DIST. NO. 7		ILLINOIS	PROJECT S-688(2)	

Bridge Sheet No 7 of 9 Sheets



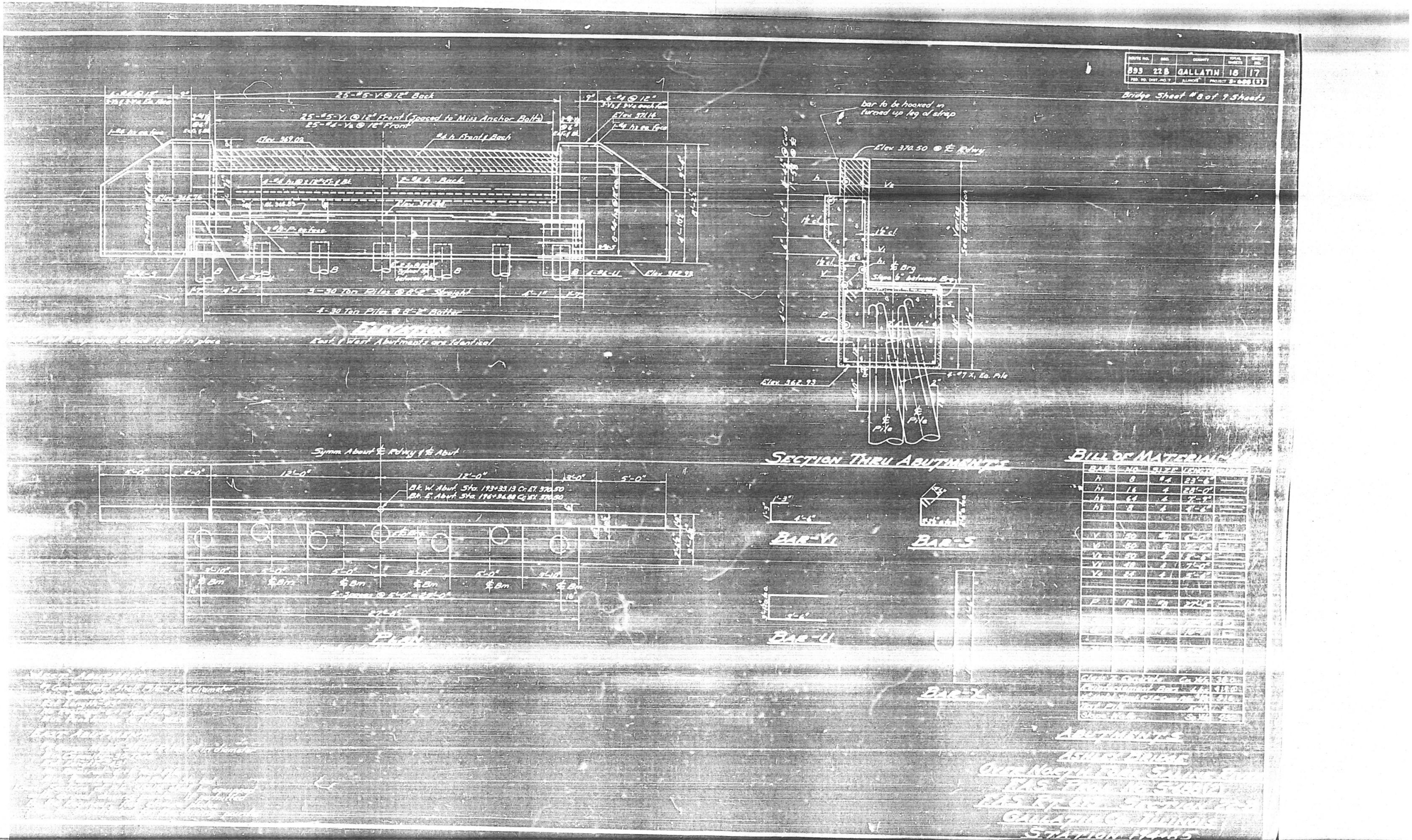
BILL OF MATERIAL - PIER #2

BAR	NO	SIZE	LENGTH	SHAPE
h4	48	#6	25'-4"	
h5	27	5	25'-2"	
P1	5	#9	29'-10"	
P2	2	8	27'-4"	
V6	72	#6	11'-4"	
V7	36	11	6'-6"	
V8	36	11	13'-0"	
V9	72	7	28'-0"	
U3	48	#6	6'-4"	
U4	52	5	5'-4"	
U5	48	6	7'-2"	
m	10	#9	13'-6"	
m1	10	9	4'-6"	
P	72	7	7'-4"	
S4	24	5	11'-0"	
S5	21	5	9'-2"	
[illegible]	[illegible]	[illegible]	8'-9"	
W	6	#5	31'-8"	
W1	3	6	31'-8"	
E	49	7	12'-8"	

Class X Concrete	Cu. Yds.	199.6
Reinforcement Bars	Lbs.	17020
Class A Excav. for Str.	Cu. Yds.	66
Class B Excav. for Str.	Cu. Yds.	446
Rock Excavation	Cu. Yds.	0.5

PIER #2

ASHLEY BRIDGE
OVER NORTH FORK SALINE RIVER
F.A.S. PROJ. NO. S-688(2)
F.A.S. RT. 893 SECTION 22-B
GALLATIN CO., ILLINOIS
STATION 194+85


893 22B GALLATIN 16 17
FED. RD. DIST. NO. 7 ILLINOIS PROJECT
Bridge Sheet #8 of 9 Sheets
25-#5-V @ 12" Back
25-#5-V1 @ 12" Front (Spaced to Miss Anchor Bolts)
25-#4-V2 @ 12" Front
#4 h Front & Back
Elev. 369.02
Elev. 371.14
Elev. 362.93
3-30 Ton Piles @ 8'-2" Straight
4-30 Ton Piles @ 8'-2" Batter
ELEVATION
East & West Abutments are Identical
bar to be hooked in turned up leg of strap
Elev. 370.50 @ ℄ Rdwy
℄ Brg
4-#7 X, Ea. Pile
℄ Pile
SECTION THRU ABUTMENTS
Symm. About ℄ Rdwy & ℄ Abut.
Bk. W. Abut. Sta. 193+33.13 Cr. El. 370.50
Bk. E. Abut. Sta. 196+36.88 Cr. El. 370.50
5-Spaces @ 5'-0" = 25'-0"
PLAN
BAR-V1
BAR-S
BAR-U
BAR-X
BILL OF MATERIAL
ABUTMENTS
STATION 194+85