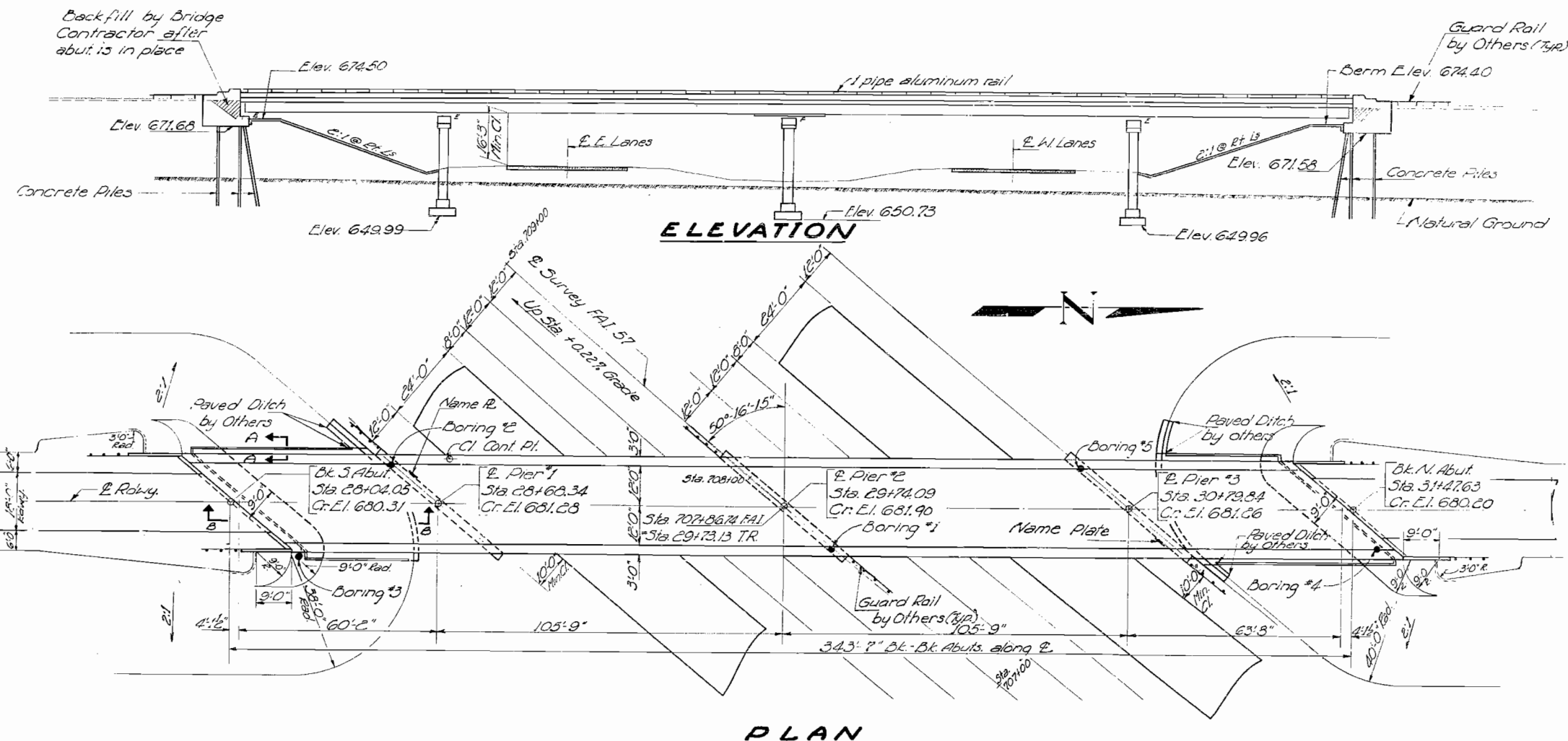


B.M. (Sta. Mon. U.S.G.S. Stamping J202)
 27' Rt. of E. at Sta. 7+00 on I.R. 58
 Elev. 663.348

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BUILDINGS
 DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET N.
1-57	38-5HB-3	IROQUOIS	31	18	10 SHEETS
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT: 7-57-6(73)283					



GENERAL NOTES

Coarse aggregate to be used in parapet handrails and end posts must be absolutely free of chert, flint, limonite, lignite and sandstone.

The concrete floor slab shall be finished in accordance with Art. 51.19 of the Standard Specifications.

Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 38" per 100 sq. ft.

All reinforcement bars shall be lapped 20 dia unless otherwise noted.

Permanent forms will not be permitted in forming the concrete floor.

Rivets 3/4" open holes 1 1/2", unless otherwise noted.

Anchor bolts shall be set before riveting diaphragms over supports.

The exposed surfaces of the expansion guard shall be given two shop coats of red lead paint; the contact surfaces shall be given one coat of red lead paint. Anchor studs shall not be painted.

Expansion guards are included in the weight of structural steel. Estimated weight 1040 lbs.

Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Art. 56.1 to 56.5 inclusive of the Standard Specifications.

The Contractor shall drive 2 concrete test piles in a permanent location, one each at the North and South Abutments as directed by the Engineer before ordering the remainder of the piles.

Concrete piles at abutments shall be driven in holes precored through the embankment in accordance with Art. 60.9(c) of the Standard Specifications.

All structural steel shall comply to the Specification for Structural Steel ASTM designation A36.

Excavation for portion of structure in the embankments shall not be classified.

Stud shear connectors on the beam flanges shall be placed in the field after the steel has been erected & the deck forms are in place.

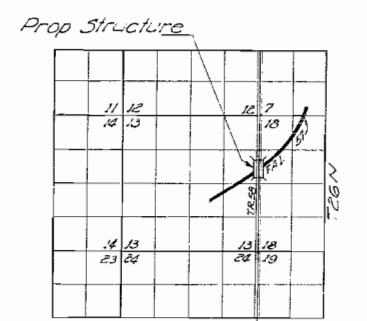
Flange shear connectors are included in quantity of struct. steel. No. Req'd = 2400. Estimated wt. 1480 lbs.

TOTAL BILL OF MATERIAL

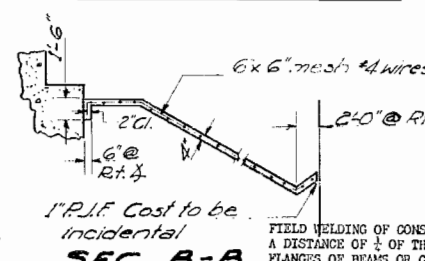
Item	Super.	Sub	Total
Class "A" Exc. for Struct.	Cu. Yds.		460
Class X Concrete	Cu. Yds.	361.7	294.8
Furn. & Erecting Struct. Steel	Lbs.	378,150	378,150
Aluminum Handrail	Lin. Ft.	678	678
Reinforcement Bars	Lbs.	63,760	37,640
Concrete Piles	Lin. Ft.	564	564
Test Piles, Concrete	Ea.		2
Name Plates	Ea.		2
Slope wall 4"	Sq. Yds.	570	570
Protective Coat	Sq. Yds.	1,300	1,300

* Includes inside vertical face, top & exposed end of abut. wings.

GENERAL PLAN & ELEVATION
PROJ. 1-57-6 (73) 283
T.R. 58 OVER FAI RT. 57
FAI RT. 57 SEC. 38-5HB-3
IROQUOIS COUNTY
STA. 707+86.74



LOCATION PLAN

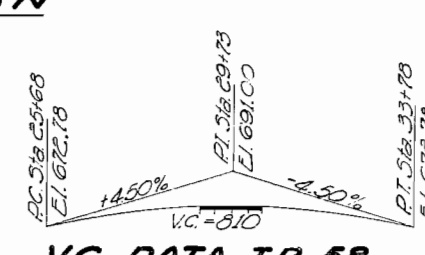


SEC. B-B

STATION 707+86.74
 BUILT 196 BY
 STATE OF ILLINOIS
 FAI RT. 57 SEC. 38-5HB-3
 FA. PROJ. 1-57-6 (73)
 LOADING HS15

NAME PLATE

See Std. 2113-1



V.C. DATA-T.R. 58

CURVE DATA-FAI 57

PI Sta. 691+70.81
 $\Delta = 43^{\circ}01'08.10''$
 $D = 1^{\circ}00'00''$
 $T = 2258.03'$
 $L = 4301.89'$
 $R = 5729.58'$
 $E = 428.89'$
 $SE = 0.01\%$
 SE Attained: (Remove Crown)
 Sta. 661+78.78 to Sta. 669+78.78
 Sta. 711+48.67 to Sta. 713+48.67
 Full SE Sta. 669+78.78 to Sta. 711+48.67

DESIGN STRESSES

$f_c = 1400$ psi Super & Sub
 $f_s = 20,000$ psi Reinf.
 $f_s = 20,000$ psi Struct. (A-36 Steel)
 $vc = 75$ psi Flgs.
 $n = 10$

LOADING HS15-44

DESIGNED	W. L. Rye
CHECKED	W. L. Rye
DRAWN	A. Barrera
CHECKED	W. L. Rye

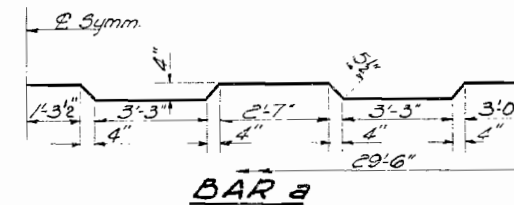
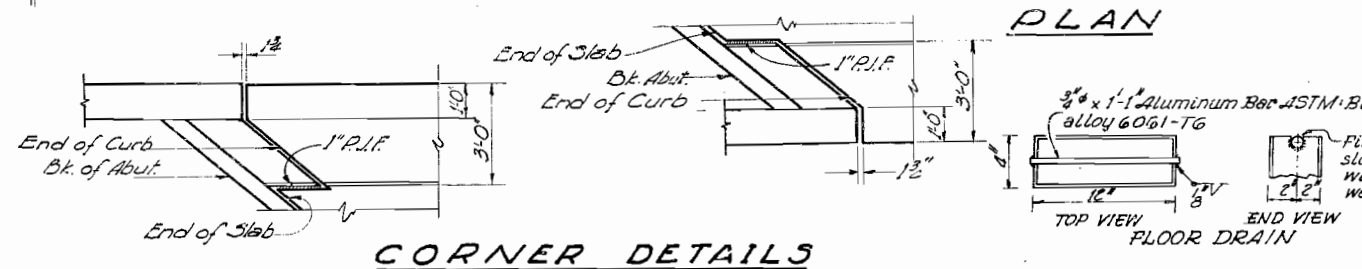
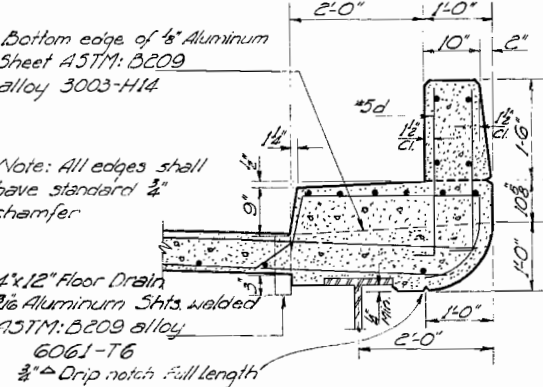
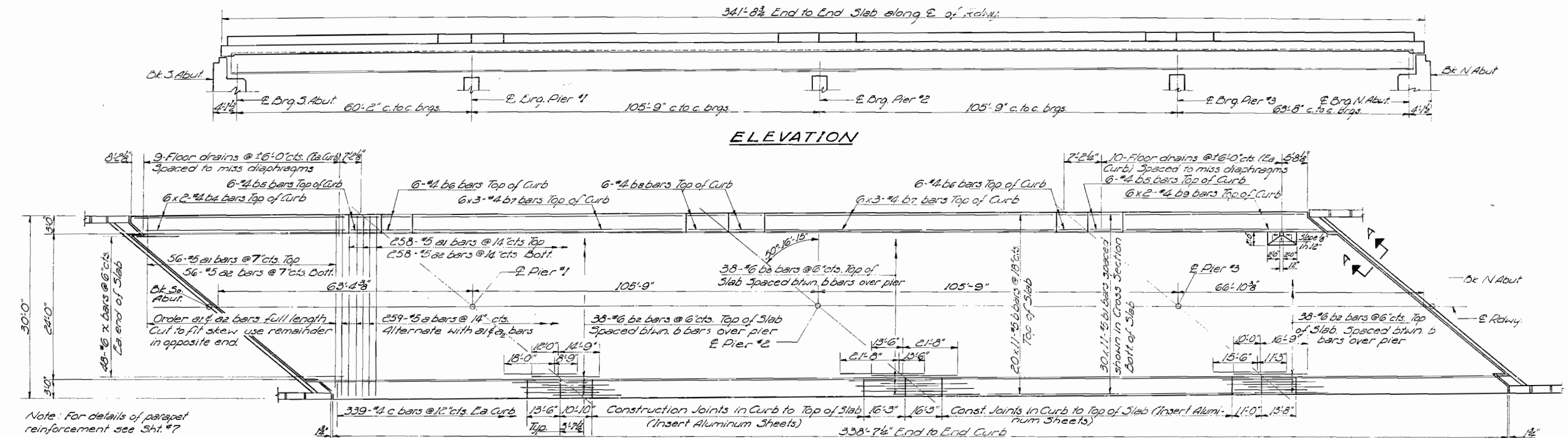
EXAMINED	Mar 4 1963
PASSED	W. L. Rye
APPROVED	W. L. Rye

Revised 2/8/66 Barring Exc. chgd. Quantities of Class "A" Exc., Barring Exc., Eriug. Bars & Slope Wall increased.
 Added Guard Rail. NOTE for Shear connectors in Detail Notes.
 Deleted quantities for embankment & borrow from this sheet, see sheet 17 Plan & Profile.

Note: Bars indicated thus 20x11-#5 etc. indicates 20 lines of bars with 11 lengths per line. Min. bar laps = 20 dia.

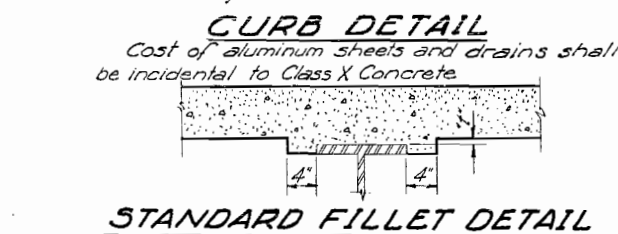
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
57	38-5HB-3	IROQUOIS	31	9	10 SHEETS
FED. ROAD DIST. NO. 1	ALINDS	ED. AND PROJECT			



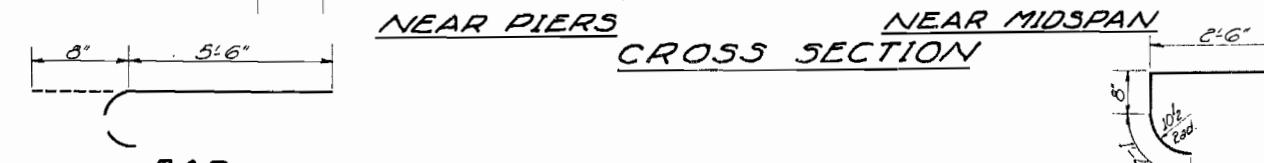
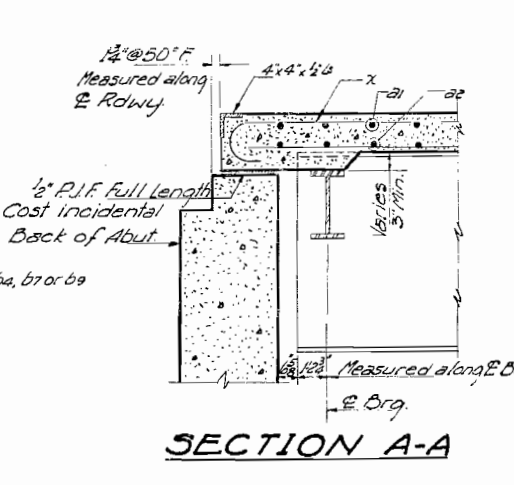
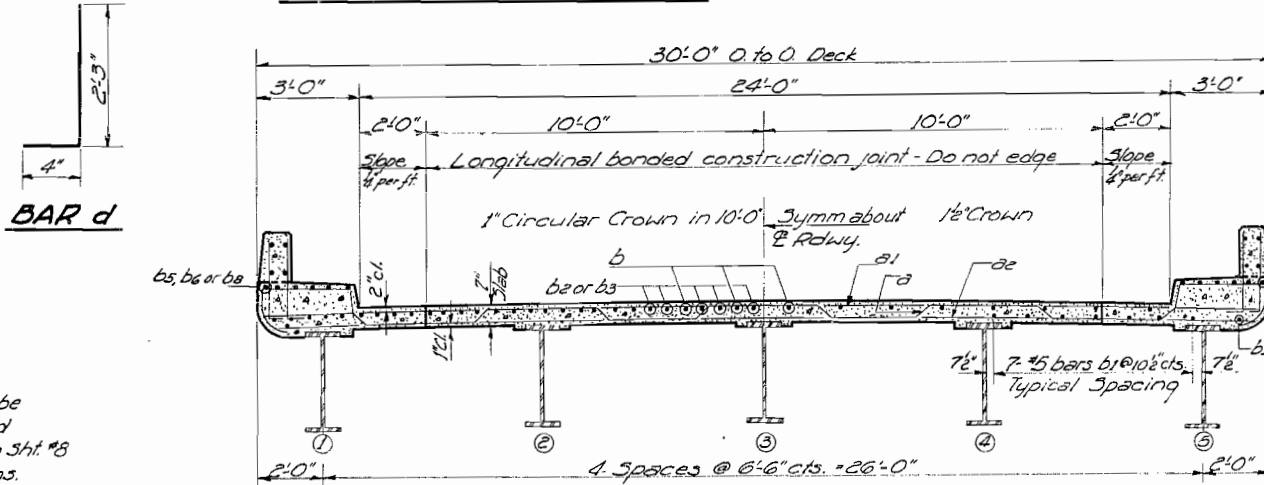
BILL OF MATERIAL

Bar	No	Size	Length	Shape
a	259	#5	30'-6"	~
a1	314	#5	29'-8"	—
a2	314	#5	29'-0"	—
b	220	#5	32'-0"	—
b1	330	#5	32'-0"	—
b2	76	#6	26'-9"	—
b3	38	#6	35'-2"	—
b4	24	#4	24'-6"	—
b5	24	#4	13'-0"	—
b6	24	#4	10'-6"	—
b7	72	#4	25'-3"	—
b8	24	#4	15'-10"	—
b9	24	#4	25'-0"	—
b10	12	#5	15'-0"	—
b11	16	#5	13'-0"	—
b12	16	#5	10'-4"	—
b13	64	#5	19'-2"	—
b14	40	#5	15'-10"	—
b15	12	#5	17'-6"	—
c	678	#4	5'-6"	—
d	1508	#5	2'-7"	—
x	96	#6	6'-2"	—
Class X Concrete				Cu. Yds. 361.7
Reinforcement Bars				Lbs. 63,760
Structural Steel				Lbs. 378,150



To determine "r": After all Structural Steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on Sht. #8. These elevations subtracted from the "Grade Elevations Adjusted for D.L. Deflections" shown on Sht. #8 minus slab thickness equals the fillet heights "r" above top of beams.

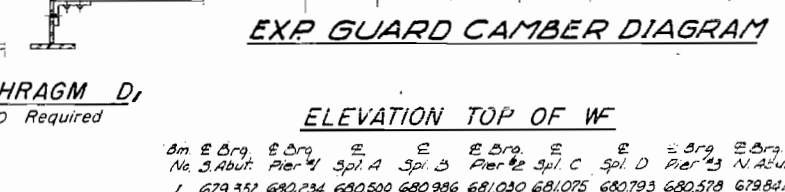
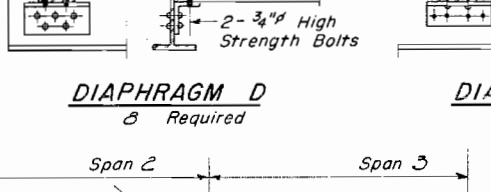
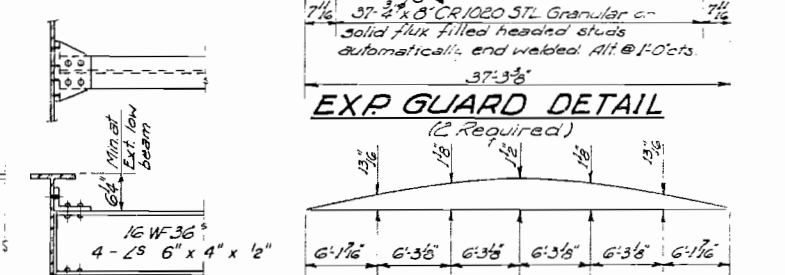
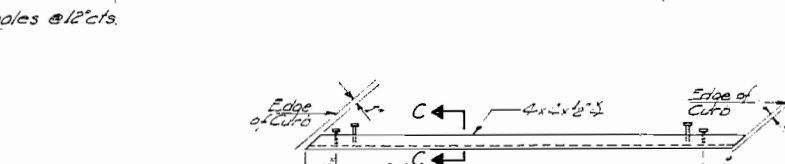
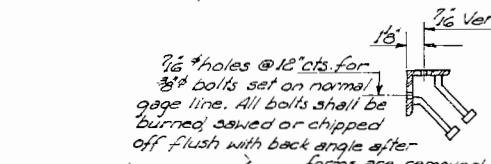
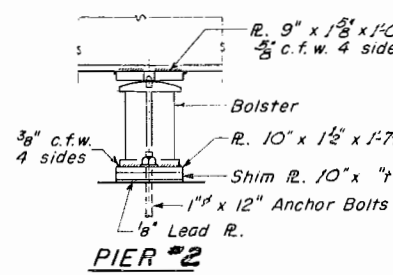
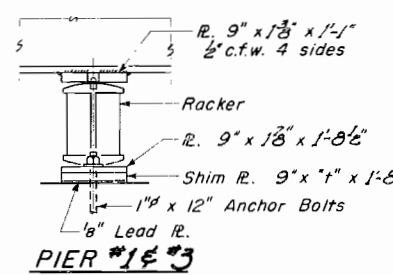
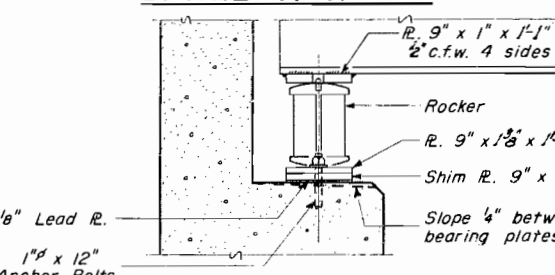
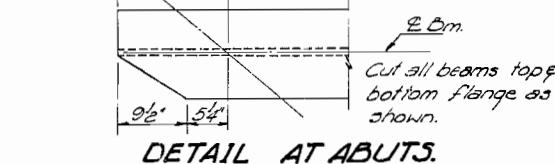
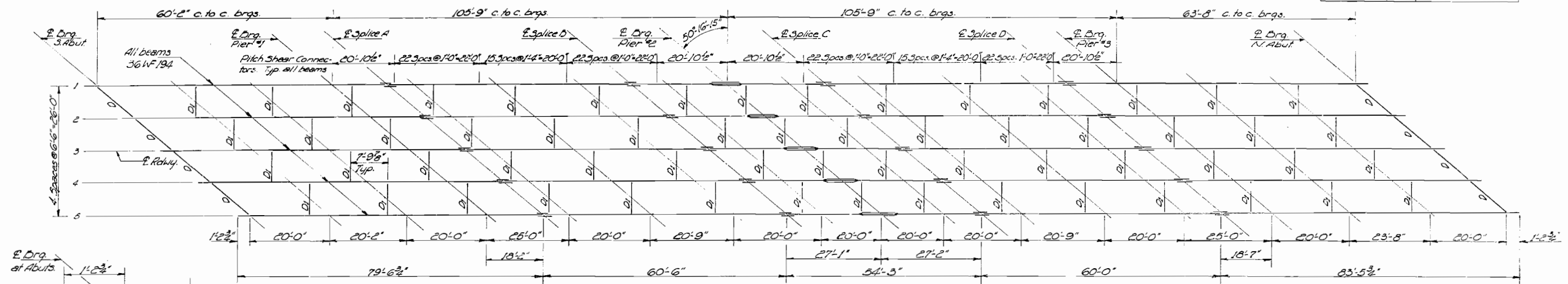
DESIGNED	K. L. Figgie
CHECKED	C. Lawrence Orlew
DRAWN	A. Barraza
CHECKED	C. Barraza
EXAMINED	K. E. Bauman
PASSED	C. Barraza
APPROVED	J. E. Smith



SUPERSTRUCTURE
FAI. RT. 57 SEC. 38-5HB-3
IROQUOIS COUNTY
STA. 707+86.74

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
FAI. 57	38-5HB3	IROQUOIS	31	20	10 SHEETS
FED. ROAD DIST. NO. 1 ILLINOIS 1-40 PROJECT					



ELEVATION TOP OF WF

Station	Abut. 1	Pier 1	Splice A	Splice B	Pier 2	Splice C	Splice D	Pier 3	Abut. 2
1	679.352	680.234	680.500	680.986	681.030	681.075	680.793	680.578	679.841
2	679.616	680.446	680.697	681.129	681.050	681.171	680.838	680.607	679.814
3	679.798	680.576	680.811	681.191	681.188	681.186	680.800	680.552	679.704
4	679.903	680.623	680.847	681.175	681.157	681.123	680.695	680.421	679.518
5	679.925	680.599	680.802	681.077	681.027	680.978	680.488	680.208	679.250

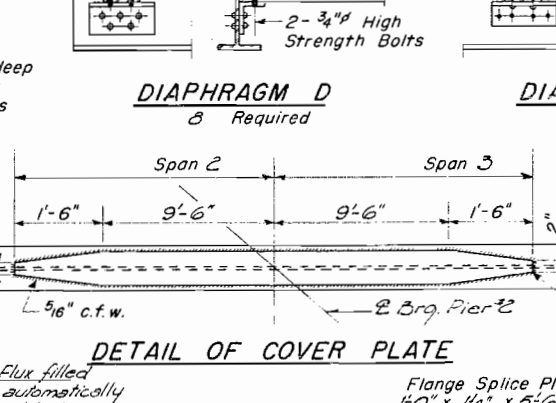
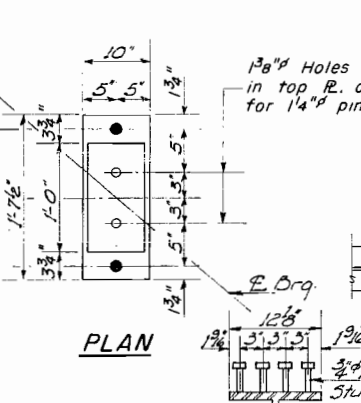
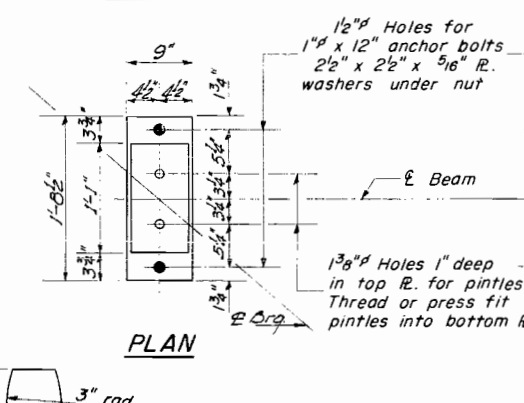
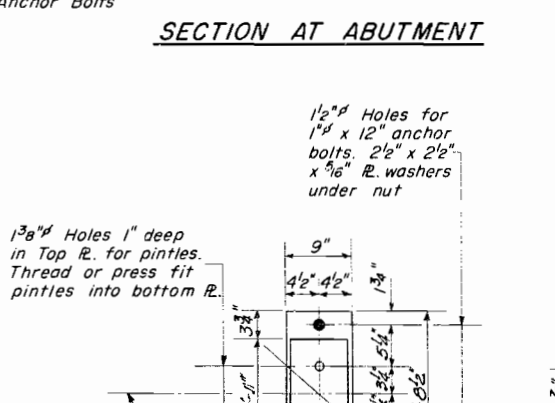
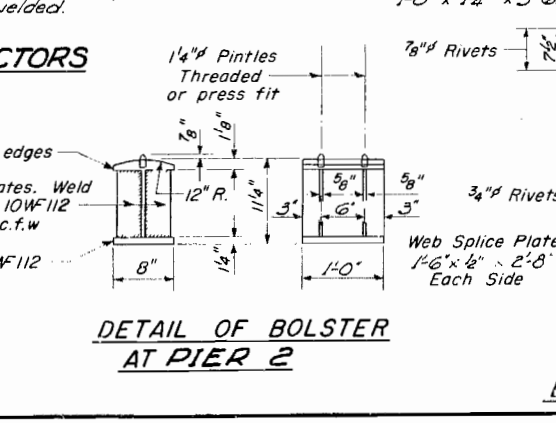
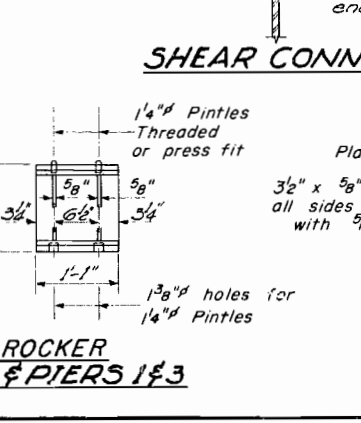
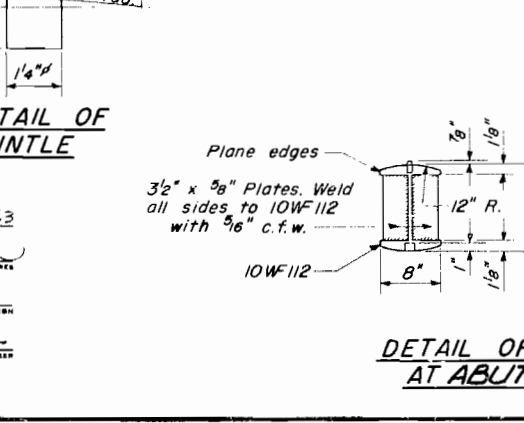
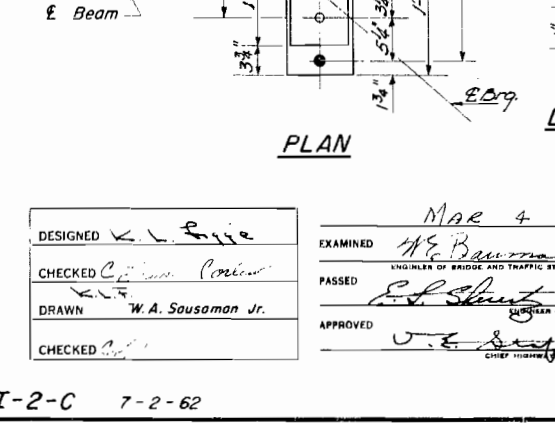


TABLE OF "I" DIMENSIONS

Span	Span 1	Span 2	Span 3	Span 4	Span 5
1	0	0	0	5/8	5/8
2	0	0	0	1 1/2	0
3	0	0	7/8	0	0
4	0	0	0	0	0
5	1/4	1/4	0	0	0



STRUCTURAL STEEL
FAI. RT. 57 SEC. 38-5HB-3
IROQUOIS COUNTY
STA. 707+86.74

DESIGNED *L. E. Rife*
CHECKED *C. E. Rife*
DRAWN *W. A. Sausman Jr.*
CHECKED *C. E. Rife*

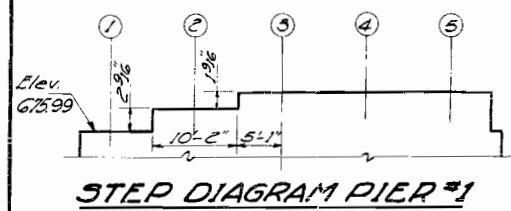
EXAMINED *W. E. Bauman*
PASSED *E. J. Skutumpah*
APPROVED *W. E. Bauman*

MAR 4 1963

I-2-C 7-2-62

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
57	38-5HB-3	IROQUOIS	31	21	10 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. 1	10000		

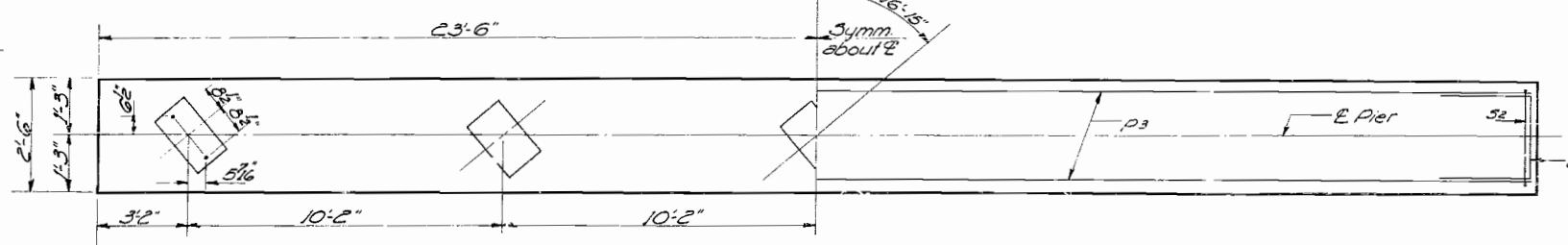


STEP DIAGRAM PIER #1

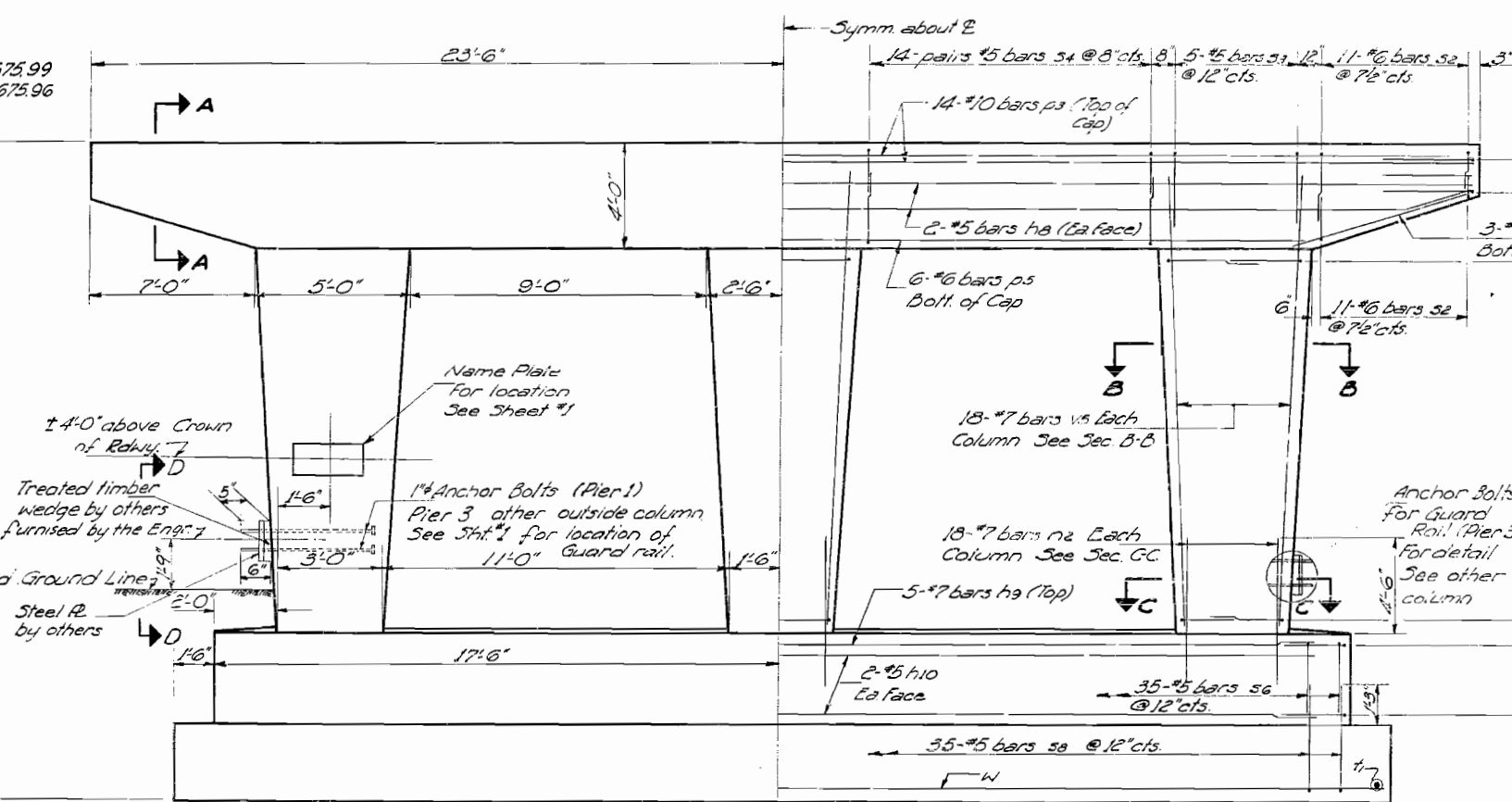
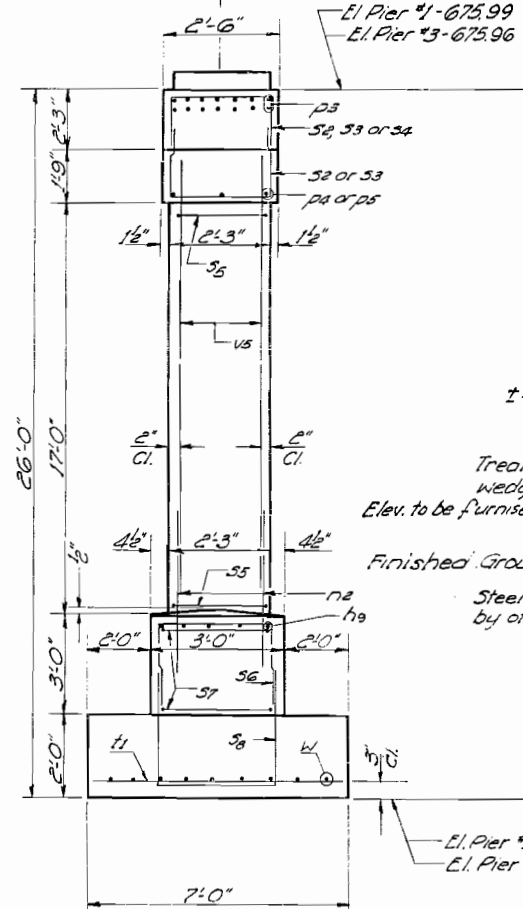
Pier #1
Sta. 28+68.34
Cr. Elev. 681.28

Pier #3
Sta. 30+79.84
Cr. Elev. 681.26

El. Pier #1-675.99
El. Pier #3-675.96



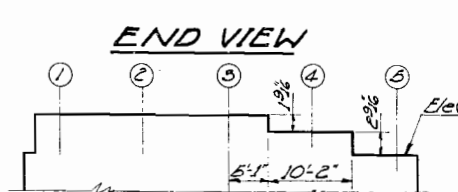
TOP PLAN



DIMENSIONS

ELEVATION

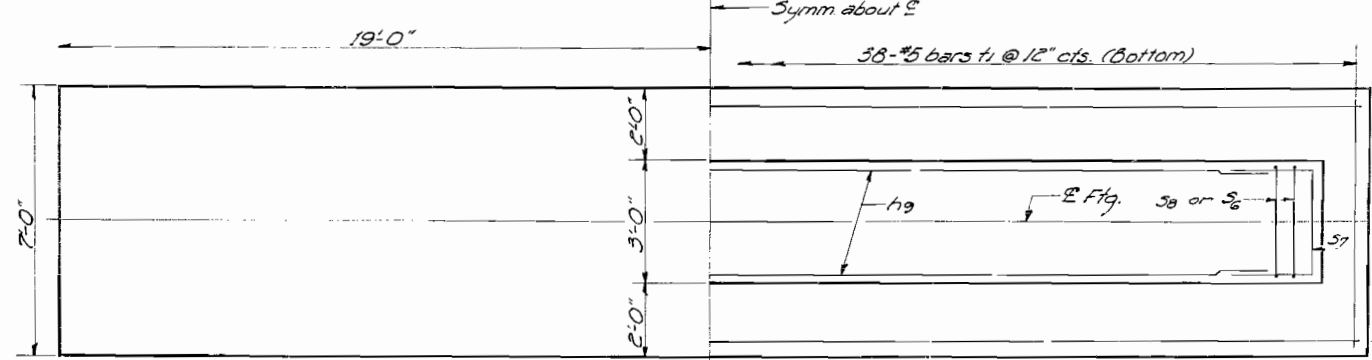
REINFORCEMENT



END VIEW

STEP DIAGRAM PIER #3

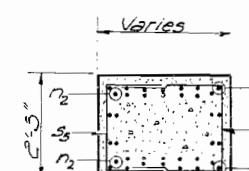
Elev. 675.96



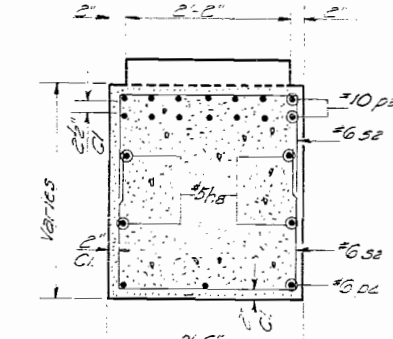
DIMENSIONS

FOOTING PLAN

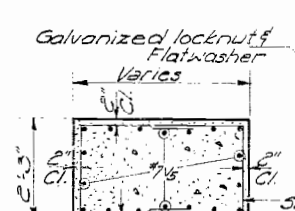
REINFORCEMENT



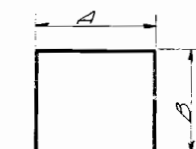
SECTION C-C



SECTION A-A



SECTION B-B



BARS S

A & B DIMENSIONS

Bar	A	B
s2	2'-2"	2'-0"
s3	2'-2"	2'-0"
s4	2'-2"	2'-0"
s5	1'-11"	2'-9"
s6	2'-8"	2'-8"
s7	2'-6"	3'-0"
s8	2'-8"	3'-0"

TWO PIERS
BILL OF MATERIAL

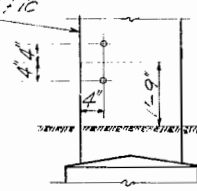
Bar	No.	Size	Length	Shape
h8	16	#5	24'-0"	
h9	10	#7	33'-6"	
h10	8	#5	33'-6"	
n2	108	#7	6'-0"	
ps	28	#10	46'-6"	
s2	12	#6	8'-0"	
s3	12	#6	32'-6"	
s4	88	#6	6'-2"	
s5	30	#5	6'-2"	
s6	112	#5	7'-2"	
s7	216	#5	7'-5"	
s8	70	#5	8'-0"	
s9	12	#5	8'-6"	
s10	70	#5	8'-8"	
t1	76	#6	6'-6"	
u2	12	#6	7'-0"	
vs	108	#7	19'-0"	
w	18	#7	37'-6"	

Class X Concrete Cyl. 136.9
Reinforcement Bars Lbs. 20,300
Name Plates 2

DESIGNED K. L. R. Rie
CHECKED J. L. R. Rie
DRAWN K. L. R. Rie
CHECKED C. L. R.

EXAMINED M. A. R. Rie
PASSED E. L. R. Rie
APPROVED J. L. R. Rie

Maximum Soil Pressure = 2.62 Ton/sq. ft.
The face toward traffic



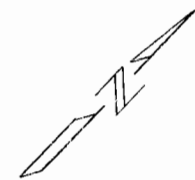
VIEW D-D

Note: Space reinforcement in cap to miss anchor bolts.
Min. bar laps = 20 dia. unless otherwise noted.
All edges shall have 1/4 chamfer
Pour steps monolithically with cap

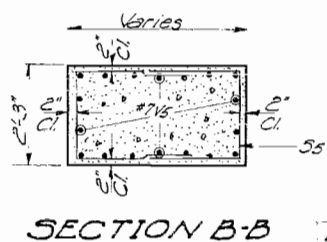
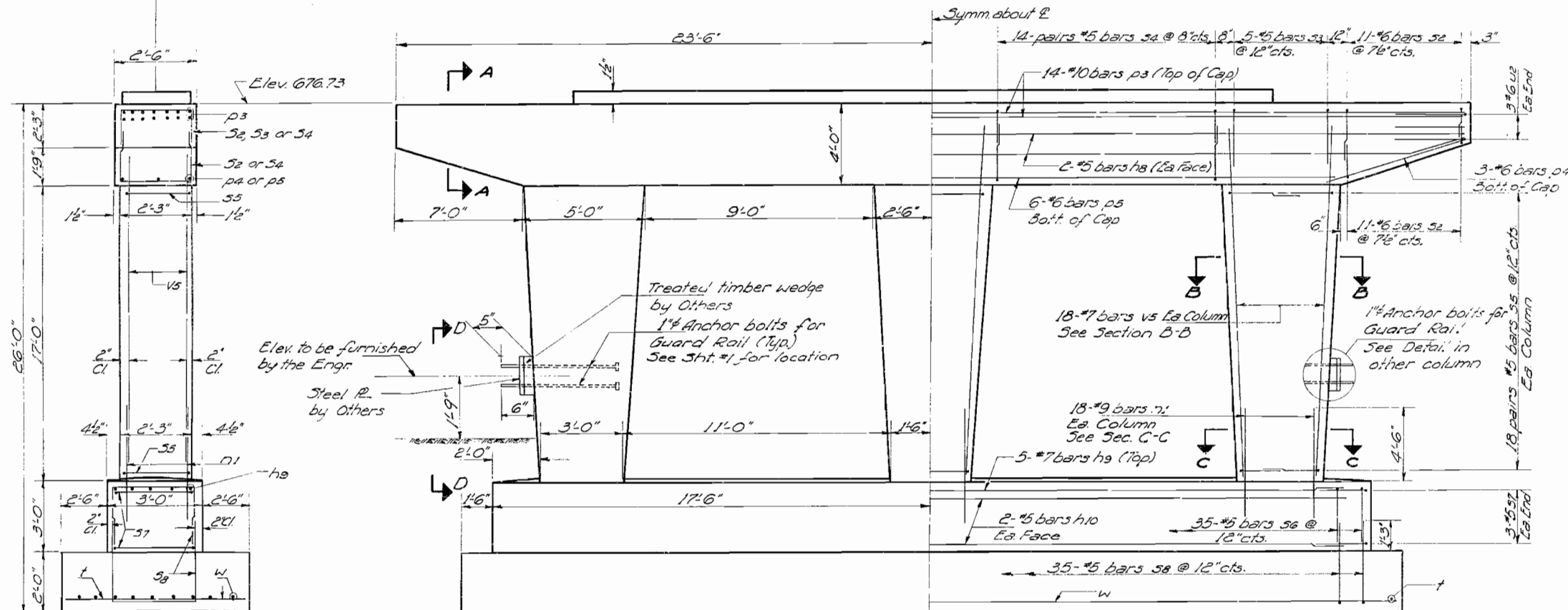
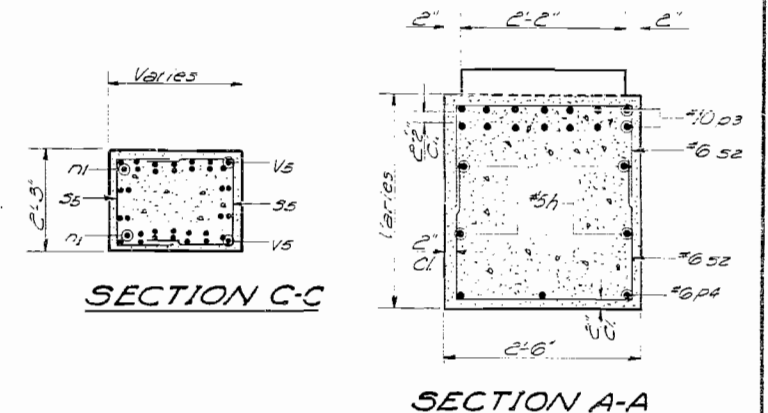
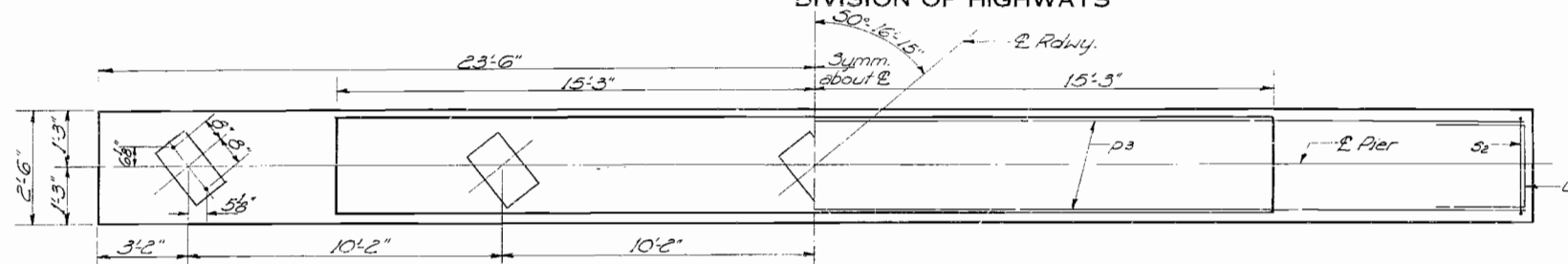
PIERS #1 & #3
FAI. RT. 57 SEC. 38-5HB-3
IROQUOIS COUNTY
STA. 707+86.74

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI RT. 57	38-5HB-3	IROQUOIS	31	22
SHEET NO. 5 10 SHEETS				



Pier #2
Sta 29+74.09
Cr Elev. 681.90



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h8	8	#5	24'-0"	—
h9	5	#7	33'-6"	—
h10	4	#5	33'-6"	—
h1	54	#9	6'-0"	—
h3	14	#10	46'-6"	—
h4	6	#6	8'-0"	—
h5	6	#6	32'-6"	—
h2	44	#6	6'-2"	—
h3	15	#5	6'-2"	—
h4	56	#5	7'-2"	—
h5	108	#5	7'-5"	—
h6	35	#5	8'-0"	—
h7	6	#5	8'-6"	—
h8	35	#5	8'-8"	—
t	46	#6	7'-6"	—
u2	6	#6	7'-0"	—
v5	54	#7	19'-0"	—
w	9	#7	37'-6"	—

Class X Concrete Cyls. 67.8
Reinforcement Bars Lbs. 10750

BAR S

A & B DIMENSIONS

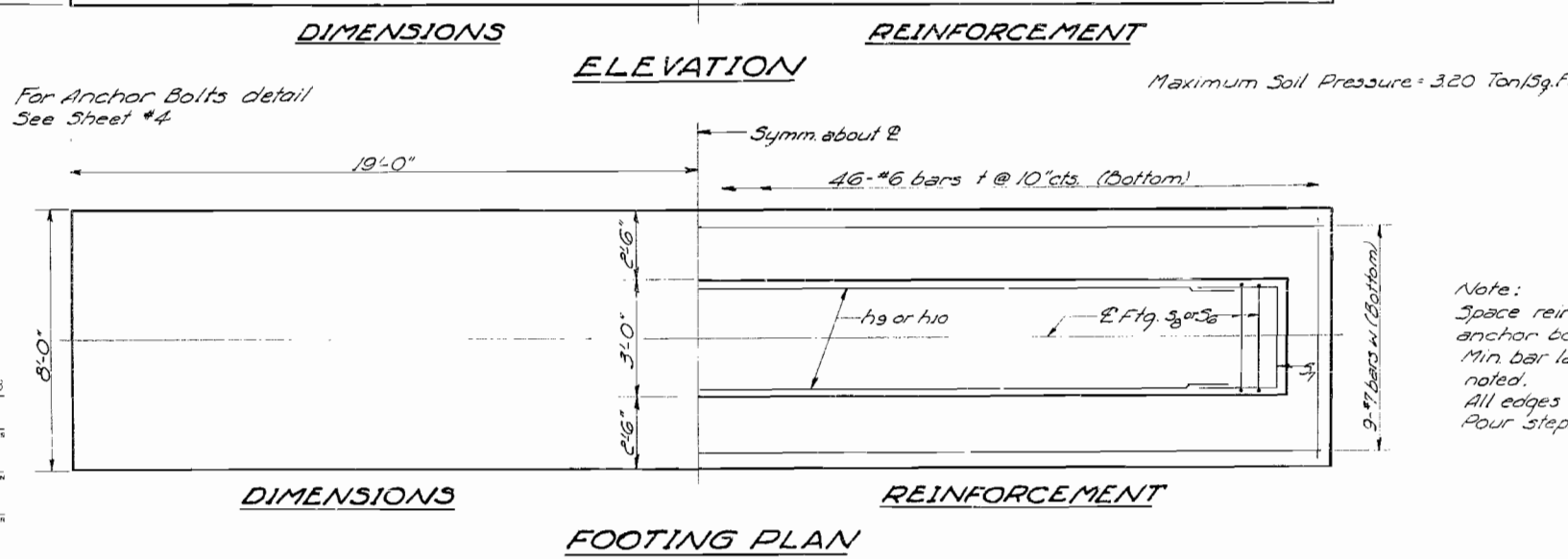
Bar	A	B
h2	2'-2"	2'-0"
h3	2'-2"	2'-0"
h4	2'-2"	2'-0"
h5	1'-11"	2'-9"
h6	2'-8"	2'-8"
h7	2'-6"	3'-0"
h8	2'-8"	3'-0"

BAR U2

Note:
Space reinforcement in cap to miss anchor bolts.
Min bar laps = 20 dia unless otherwise noted.
All edges shall have 3/4" chamfer.
Pour steps monolithically with cap.

DESIGNED K.L. Rigge
CHECKED C. J. Jones
DRAWN K.L. Rigge
CHECKED P.L. C.

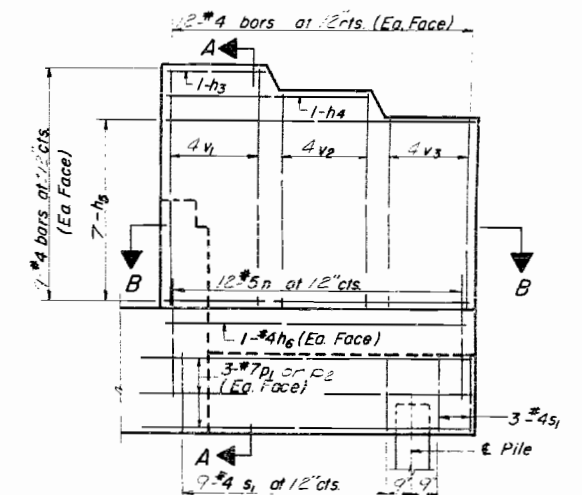
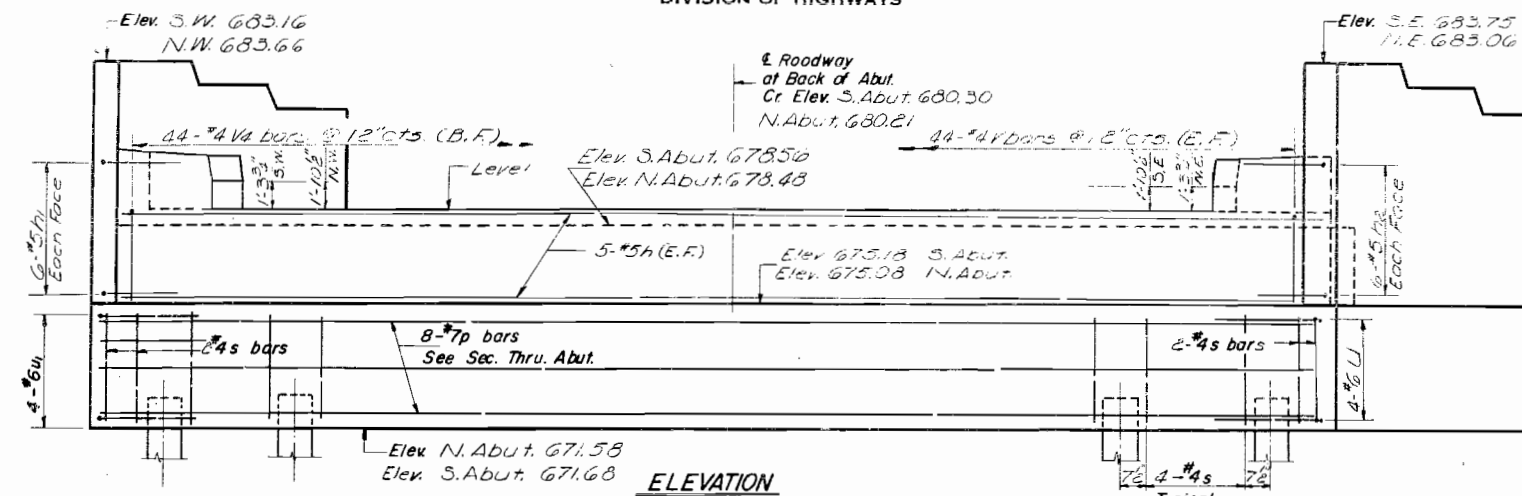
EXAMINED H. B. Harrison
PASSED E. F. Shultz
APPROVED J. E. Smith



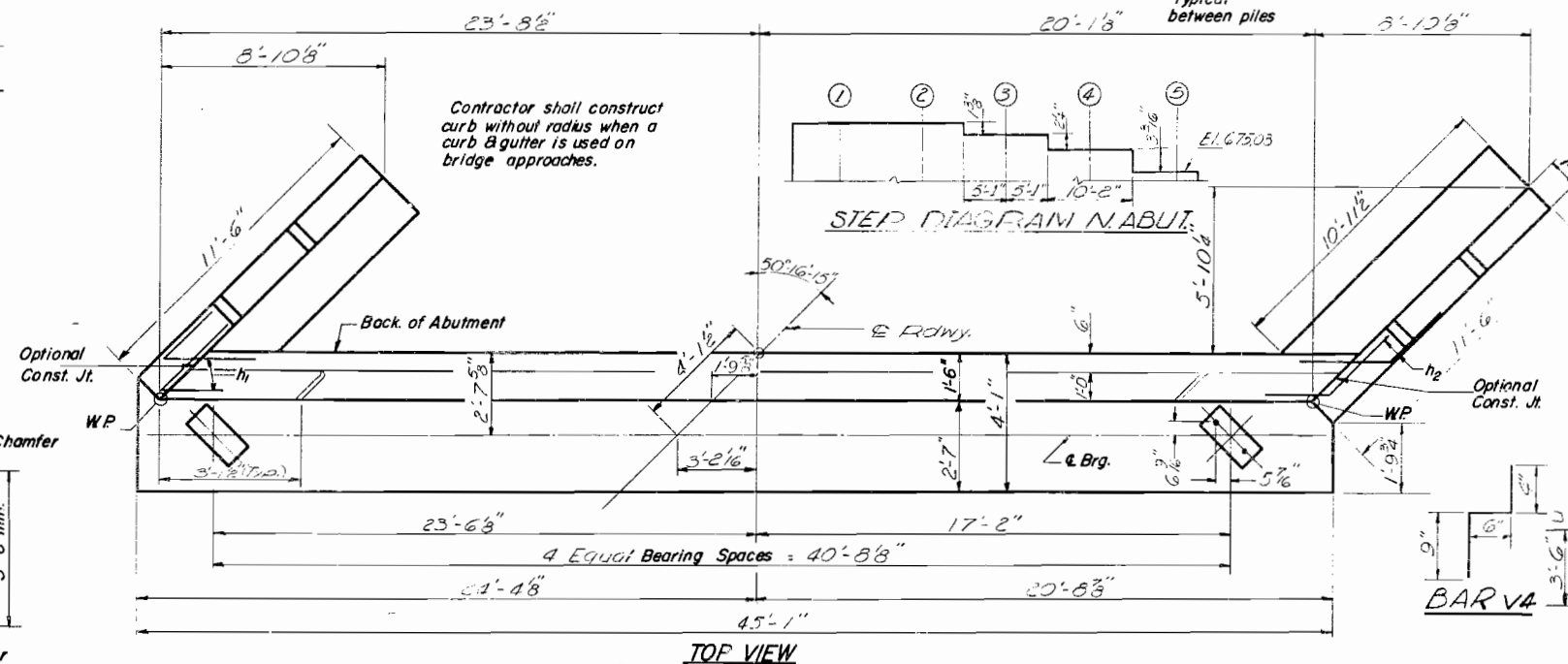
Rev. 12/6/66 Added anchor bolts for Guard Rail.

PIER #2
FAI RT. 57 SEC. 38-5HB-3
IROQUOIS COUNTY
STA. 29+74.09

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO	SHEET NO. 3
157	38-5HB3	IROQUOIS	31	2	10 SHEETS
FED RECD DIST NO 7	ILLINOIS	NO. 1000000			



WING WALL ELEVATION
Reinforcement



STEP DIAGRAM N. ABU

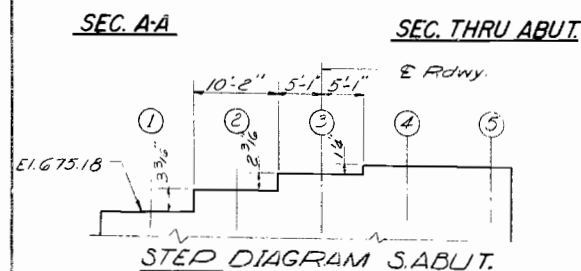
SEC. B-B

TWO ABUTMENTS

BILL OF MATERIAL

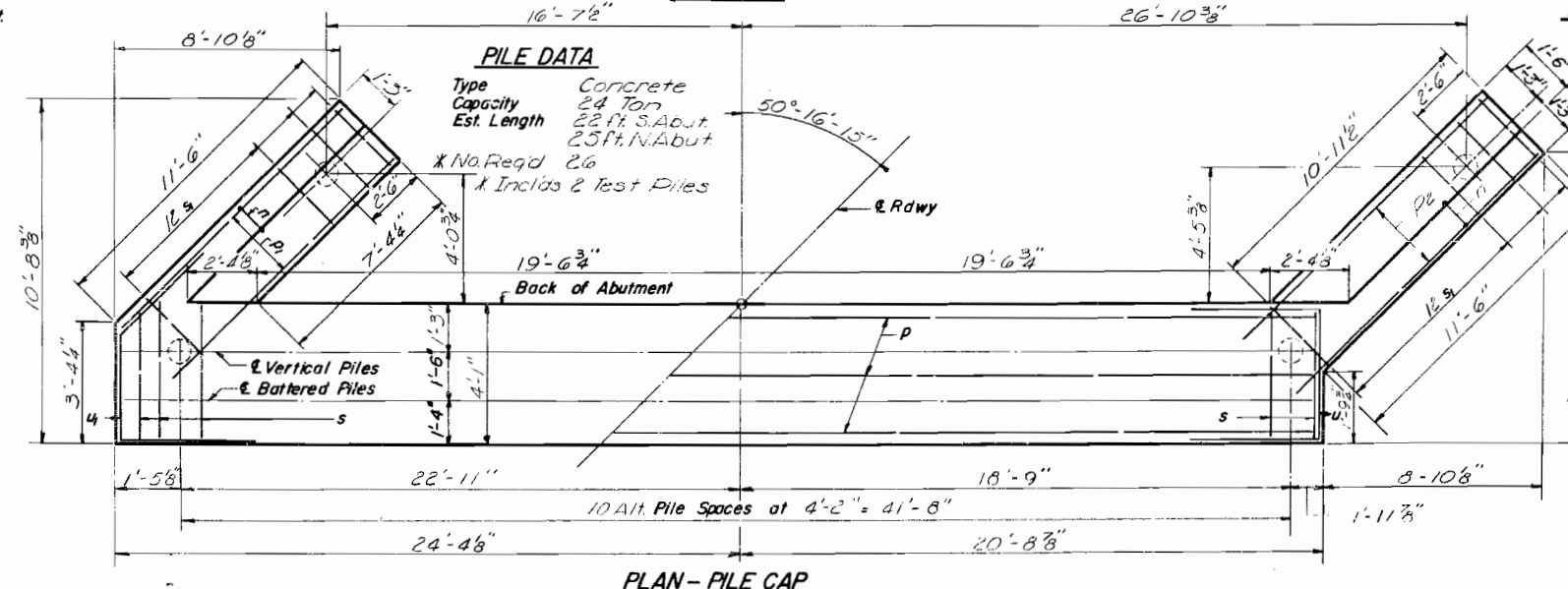
Bar	No.	Size	Length	Shape
<i>h</i>	20	#5	43'-8"	—
<i>h₁</i>	24	#5	5'-0"	∠
<i>h₂</i>	24	#5	5'-0"	∠
<i>h₃</i>	8	#4	3'-6"	—
<i>h₄</i>	8	#4	7'-4"	—
<i>h₅</i>	56	#4	11'-2"	—
<i>h₆</i>	8	#4	11'-6"	—
<i>n</i>	48	#5	7'-9"	U
<i>p</i>	16	#7	44'-9"	—
<i>p₁</i>	12	#7	11'-3"	—
<i>p₂</i>	12	#7	12'-6"	—
<i>s</i>	88	#4	14'-8"	□
<i>s₁</i>	48	#4	9'-6"	□
<i>u</i>	8	#6	10'-8"	□
<i>u₁</i>	5	#6	9'-6"	∠
<i>v</i>	176	#4	4'-5"	—
<i>v₁</i>	32	#4	7'-9"	—
<i>v_p</i>	32	#4	7'-1"	—
<i>v₃</i>	32	#4	6'-5"	—
<i>v₄</i>	88	#4	15'-7"	┌
Class X Concrete			Cu. Yds.	
Reinforcement Bars			Lbs.	
Concrete Piles			Lin. Ft.	
Test Piles			Ea.	

ABUTMENTS
F.A.I. RT. 57 SEC 35-5HB-3
IROQUOIS COUNTY
STA. 707+36.74



SEC. A-A

SEC THRU ABUT

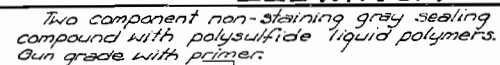


PLAN - PILE CAP

DESIGNED	19
CHECKED	EXAMINED
BY Zink	ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
DRAWN R. Ferrando	PASSED
CHECKED	ENGINEER OF HIGHWAYS
	APPROVED
	SEAL

A-9-R (35°-60°)

SECTION	DATE	TIME	TEMP	SHEET
T. 57	12-2-13	IRQUOIS	3:	24
SHEET NO 7				
10 SHEETS				



PLAN - END POST

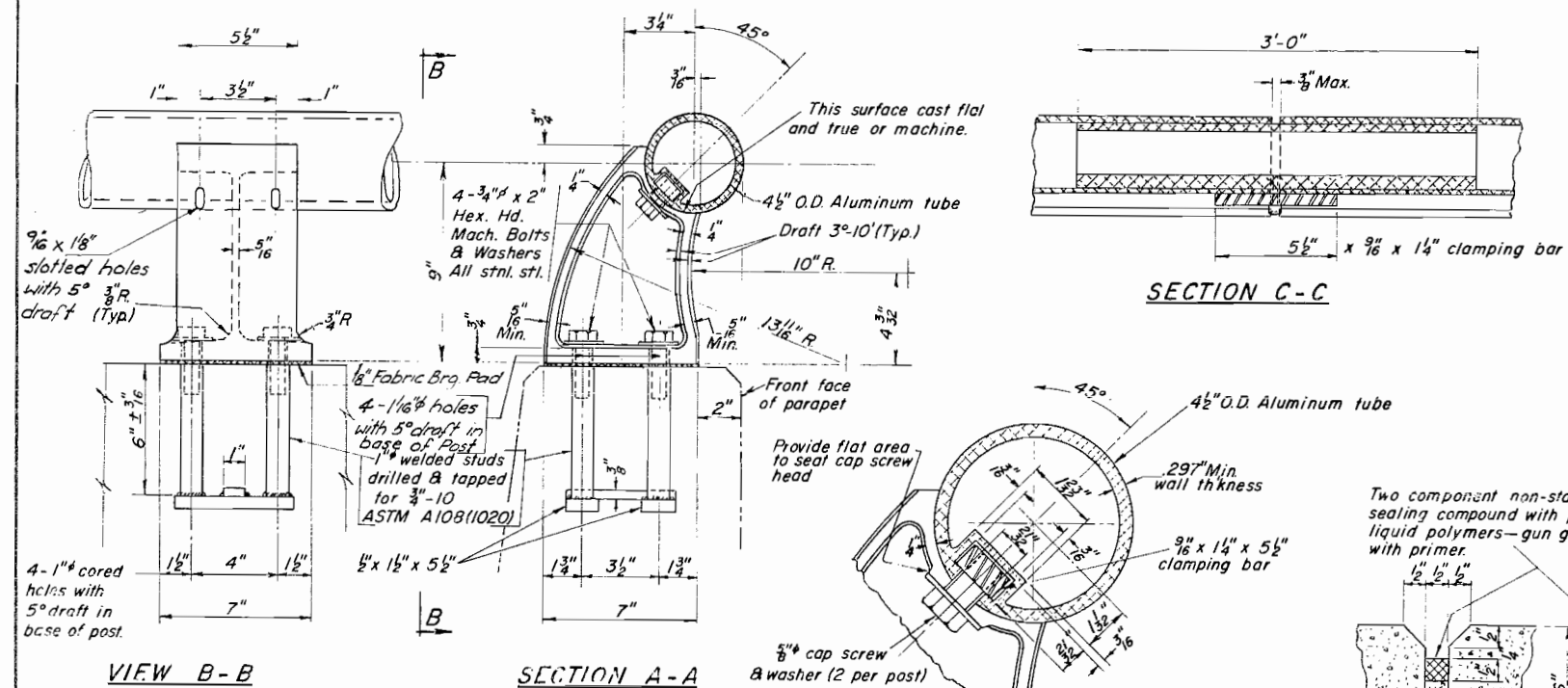
~~CAST END CAP
DRIVE FIT TYPE
2 Reg. req
Incidental to item Aluminum
Handrail~~

HANDRAIL
FAI RT. 57 SEC. 38-5HB.3
IROQUOIS COUNTY
STA. 707+86.74

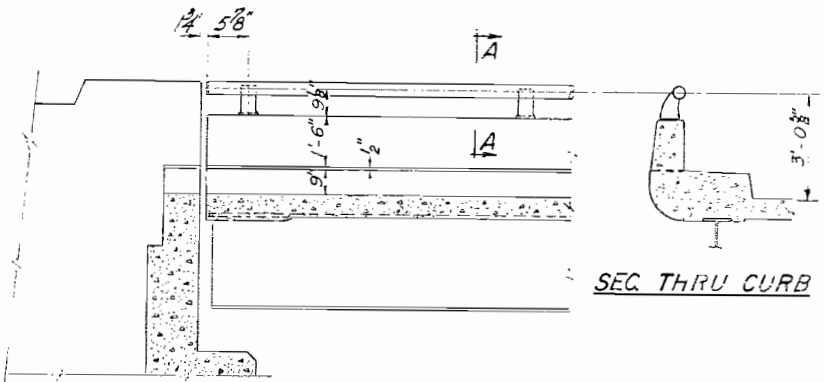
DESIGNED	<i>K. L. Logie</i>	EXAMINED	<i>H. E. Baumann</i> ENGINEER OF BRIDGES AND ENGRAVER OF THE PLANS	MAR 4 1963
CHECKED	<i>C. L. L. Coker</i>	PASSED	<i>E. E. Smith</i> ENGINEER OF DESIGN	
DRAWN	<i>W. A. Sausaman</i>	APPROVED	<i>O. E. Smith</i> CHIEF ENGINEER	

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7A
P.A. 57	38-5HB-3	IROQUOIS	31	24A	10 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



CAST END CAP
DRIVE FIT TYPE
4 Required
Incidental to item Aluminum Handrail.



ELEVATION—END POST

NOTES:

All Posts shall be normal to parapet.
All Aluminum Alloy Extruded Rail shall conform to ASTM specification B-221 alloy 6061-T6, and shall extend a minimum of 2 panel lengths (attached to a minimum of 3 posts) except at ends or at open joints where a minimum of 1 panel length is required. All joints in railing must be spliced per detail.

See Special Provisions for following Material Specifications:

Cost Aluminum Alloy Bridge Post Alloy A344-T4.
Stainless Steel Bars, Cap Screws, Washers and Lockwashers.
Fabric Bearing Pad.

METHOD of MEASUREMENT: Aluminum handrail shall be measured in lineal feet. The length paid for shall be the over all length along the top longitudinal railing member thru all posts and gaps.

BASIS of PAYMENT: Aluminum handrail shall be paid for at the contract unit price per lineal foot for ALUMINUM HANDRAIL, measured as specified, which price shall be payment in full for all materials, fabrication, transportation, and erection.

Cost of rail splice, end caps, and hardware to be incidental to item ALUMINUM HANDRAIL.

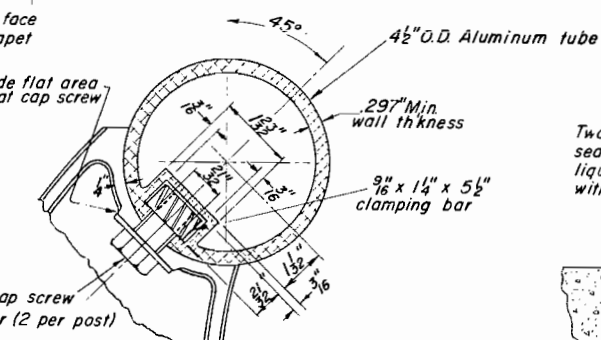
Provide 1-1/8" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade—high spots shall be ground and low spots shimmed.

BILL of MATERIAL

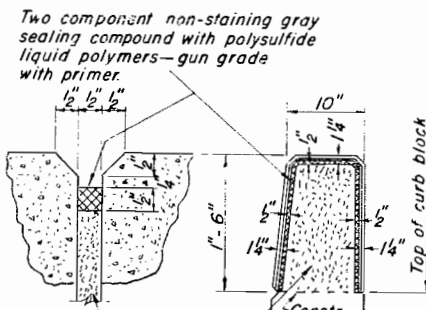
Item	Unit	Quantity
ALUMINUM HANDRAIL	Lin. Ft.	678

Note: Class X Conc. & Reinf. Bars in parapet billed with Super-structure.

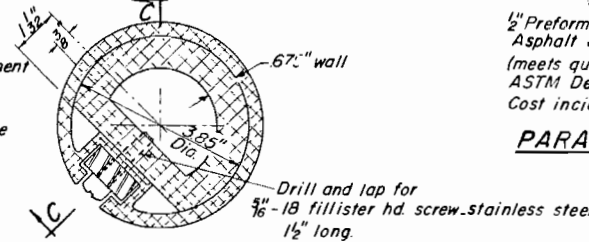
ALUMINUM HANDRAIL
FA.I. RT. 57 SEC. 38-5HB-3
IROQUOIS COUNTY
STA. 707+86.74



DETAIL of RAIL ATTACHMENT
to POST



PARAPET JOINT DETAIL



RAILING SPLICE DETAIL

Note:
Seal base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers—gun grade with primer.

DESIGNED
CHECKED
DRAWN Wm. M. Best
CHECKED

EXAMINED	19
PASSED	ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
APPROVED	ENGINEER OF DESIGN
	CHIEF HIGHWAY ENGINEER