

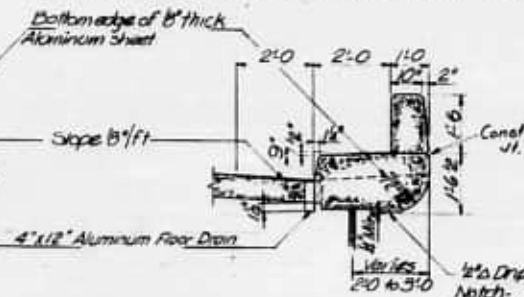
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHEET NO. 2
10 SHEETS

After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on D.L. Deflection Diagram. From these elevations subtract the increment of deflections for these points determined from the D.L. Deflection Diagram. The elevations so obtained subtracted from the theoretical grade elevations minus floor thickness equals the fillet heights above top of beam.

DRAIN DETAILS

METHOD OF DETERMINING FILLET HEIGHT 't'



CURB DETAILS



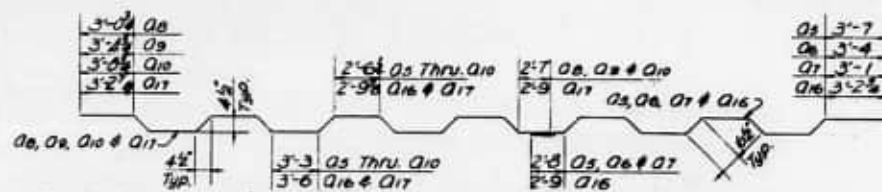
DETAILS OF 1/2" ALUMINUM SHEETS
Used in Curb Joints
ASTM: B209 alloy 3003-H14

BILL OF MATERIALS

Class X Concrete Cyls 391
Reinforcement Bars Lbs. 76,680
Structural Steel Lbs. 234,500
*Structural Steel includes weight of rockers, bolsters, bearing plates, lead plates, pintles, and anchor bolts.
Estimated Wt. = 14,345 lbs.
Cost of furnishing and installing drains, aluminum sheets shall be incidental to the contract.

BILL OF REINFORCEMENT

Bar	No.	Size	Length	Shape
01	103	5	26-1	
02	109	5	19-7	
03	218	5	22-6	
04	0	5	24-1	
05	13	5	20-5	
06	53	5	20-2	
07	42	5	19-11	
08	20	5	26-9	
09	43	5	27-1	
10	45	5	27-5	
11	76	5	24-8	
12	76	5	22-0	
13	206	5	23-10	
14	105	5	27-4	
15	103	5	20-3	
16	103	5	21-4	
17	103	5	28-9	
18	298	5	32-6	
19	116	5	17-0	
20	320	5	33-1	
21	28	5	13-7	
22	28	5	13-0	
23	16	5	12-4	
24	16	5	13-2	
25	24	5	6-3	
26	20	5	27-11	
27	20	5	7-4	
28	16	5	4-2	
29	16	5	4-2	
30	8	5	6-10	
31	24	5	13-8	
32	8	5	14-8	
33	8	5	6-3	
34	8	5	6-0	
35	10	5	33-4	
36	10	5	6-0	
37	10	5	32-3	
38	16	5	7-5	
39	16	5	16-1	
40	183	5	21-9	
41	183	5	3-9	
42	1256	5	2-10	

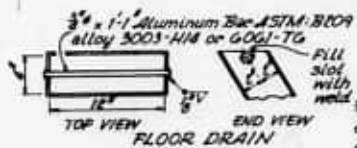


Note: Reinforcement in parapet and curb symmetrical about center unless noted otherwise.
Splices of adjacent truss bars to be located on opposite sides of center of structure.

ELEVATIONS - TOP OF SLAB ** (Elevations are not adjusted for dead load deflections)

Sta.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
A	609.52	609.30	609.24	609.01	608.86	608.70	608.54	608.38	608.15	607.92	607.68	607.45	607.32	
B	609.67	609.20	609.33	609.07	608.90	608.71	608.53	608.34	608.07	607.86	607.62	607.39	607.26	
C	609.83	609.64	609.45	609.19	608.95	608.74	608.55	608.32	608.01	607.79	607.56	607.32	607.19	
D	609.95	609.74	609.53	609.20	608.98	608.75	608.53	608.29	607.96	607.73	607.50	607.26	607.13	
E	610.02	609.79	609.56	609.22	608.98	608.75	608.51	608.26	607.91	607.67	607.43	607.19	607.01	
F	610.01	609.78	609.55	609.19	608.95	608.71	608.47	608.22	607.86	607.61	607.37	607.13	607.00	
G	609.95	609.72	609.49	609.13	608.89	608.65	608.41	608.16	607.80	607.55	607.31	607.07	606.94	
H	610.44	610.25	610.01	609.80	609.58	609.36	609.14	608.91	608.68	608.46	608.26	608.00	607.90	607.75
I	610.62	610.41	610.20	609.99	609.77	609.55	609.33	609.10	608.87	608.65	608.43	608.22	608.01	607.84
J	610.75	610.54	610.33	610.12	609.90	609.68	609.46	609.23	609.01	608.79	608.56	608.35	608.10	607.91
K	610.81	610.60	610.39	610.17	609.96	609.74	609.52	609.29	609.07	608.84	608.61	608.37	608.15	607.95
L	610.78	610.57	610.36	610.15	609.94	609.72	609.50	609.27	609.05	608.83	608.60	608.35	608.11	607.91
M	610.70	610.49	610.28	610.07	609.85	609.63	609.41	609.19	608.97	608.75	608.52	608.28	608.03	607.83
N	610.61	610.40	610.19	609.98	609.76	609.54	609.32	609.10	608.88	608.66	608.43	608.20	607.95	607.75

PLAN - E.B.



DESIGNED J.H.
CHECKED J.T.L.
DRAWN AME & J.H.
CHECKED J.T.L.

Where curb is over stringer elevation shown is that of the projection of top of slab along its cross slope.

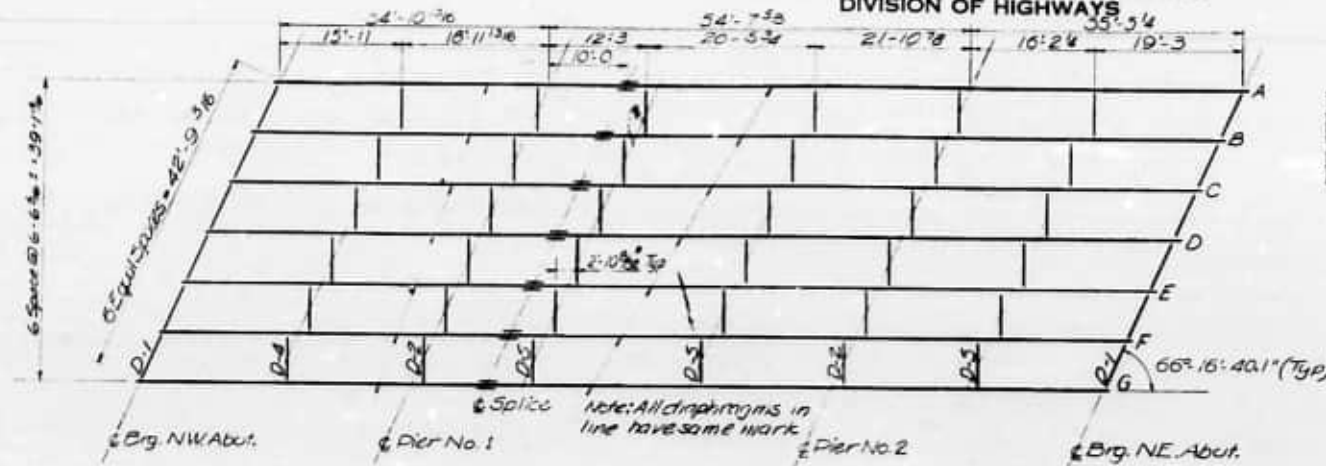
See Sheet 3 for Locations of Points.
See Sheet 4 for Cross Section.

***Place 2-5/8" bars at each rail post or inside face (road side) of parapet.

Revised notes for final plans of Alton, Illinois, provided a detailed & for each, and for 11-7-56, J.H.

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

PROJECT NO.	SECTION	DATE	BY	CHECKED	DATE	SHEET NO.
111-11	3	197	77			10 SHEETS



DEAD LOAD DEFLECTIONS (+ = downward deflection)

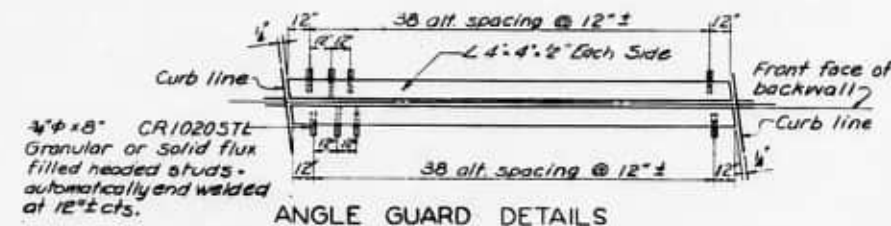
Span	Pt.	A	B	C	D	E	F	G	H	I
1	A, G	+1.32	+1.32	+1.32	+1.32	+1.32	+1.32	+1.32	+1.32	+1.32
2	B, C, D, E, F	+1.32	+1.32	0	+1.32	+1.32	+1.32	0	+1.32	+1.32
3	All Spans	+1.32	+1.32	+1.32	+1.32	+1.32	+1.32	+1.32	+1.32	+1.32

Above deflections are in inches and include weight of concrete only.

AS AWARDED **AS BUILT
TOP OF STRINGER ELEVATIONS*

Span	Pt.	W. Abut.	Pier No. 1	Splice	Pier No. 2	E. Abut.
W. B.	A	608.89	608.30	608.23	607.37	606.60
	B	609.04	608.44	608.27	607.44	606.63
	C	609.20	608.52	608.32	607.53	606.56
	D	609.32	608.57	608.35	607.58	606.50
	E	609.39	608.59	608.35	607.58	606.48
	F	609.30	608.56	608.32	607.53	606.37
	G	609.32	608.50	608.26	607.17	606.31
E. B.	H	609.81	608.95	608.73	607.83	607.12
	I	609.99	609.14	608.92	608.02	607.21
	J	610.12	609.27	609.05	608.16	607.28
	K	610.18	609.33	609.11	608.21	607.30
	L	610.15	609.31	609.09	608.20	607.28
	M	610.07	609.22	609.00	608.12	607.20
	N	609.95	609.13	608.92	608.05	607.12

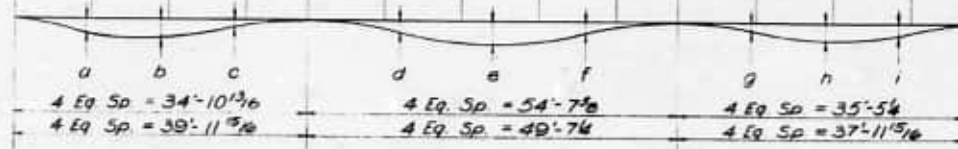
*These elevations are at top of top flange of stringer, exclusive of deflections.



FRAMING PLAN - E.B.

# Brgs. N.N. Abut. # S.W. Abut.			# Piers 1 # 3			# Piers 2 # 4			# Brgs. N.E. Abut. # S.E. Abut.				
W.B.	2 @ 10'-0" = 20'-0"	14'-10 1/2"	4 @ 10'-0" = 40'-0"			4'-7 1/2"	3 @ 10'-0" = 30'-0"	5'-5 1/2"					
E.B.	3 @ 10'-0" = 30'-0"	9'-11 1/2"	4 @ 10'-0" = 40'-0"			9'-7 1/4"	3 @ 10'-0" = 30'-0"	7'-11 1/2"			Location of pts. for top of slab elevation.		
WB-1	2	3	4	5	6	7	8	9	10	11	12	13	
EB-1	2	3	4	5	6	7	8	9	10	11	12	13	14
W.B.	4 Eq. Sp. = 34'-10 1/3"			4 Eq. Sp. = 54'-7 1/2"			4 Eq. Sp. = 35'-5 1/4"						
E.B.	4 Eq. Sp. = 39'-11 15/16"			4 Eq. Sp. = 49'-7 1/4"			4 Eq. Sp. = 37'-11 15/16"			Location of pts. for dead load deflection			

DEAD LOAD DEFLECTION DIAGRAM



FRAMING PLAN
FA180 OVER RAMP AB

STA. 363+67.23
PROJECT
SECTION 99-3 (Str. #1)
WILL COUNTY
Scale: NO SCALE
Date: Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

DESIGNED	GF
CHECKED	LD
DRAWN	11/1/61
CHECKED	JTL



Sex	WAbuts	Peris13	Peris20	LAdu
W	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	5/16	-
	E	(5/16)	7/16	1/16
	F	-	-	-
	G	-	-	-
L	H	-	-	-
	I	-	-	-
	J	-	-	-
	K	7/16	5/16	5/16
	L	-	-	-
	M	-	-	-
	N	-	-	-

Anchor bolts shall be grouted into drilled holes after beams are in place, or bolts of fixed pier may be built into masonry.

*D = $\frac{1}{8}$ "/100" of exp. for every 15° below the normal temp. of 50°F.

**D = $\frac{1}{8}$ "/100" of exp. for every 15° above the normal temp. of 50°F.

All structural steel shall be A-36.

@A Str - NW Abut
@G Str - NE Abut
@H Str - SE & SW Abuts

PHRAGM D-1
 1998-24

CROSS SECTION & STEEL DETAILS
FAJRO OVER RAMP AB

STA. 363+67.23
F A I ROUTE 80 PROJECT
SECTION 99-3 (Str. 1) WILL COUNTY
Date Nov 30 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

Angles shall be held securely in place, while pouring concrete, with 3/8" bolts in 1/2" holes set on gageline at 12" cts. All bolts shall be burned sawed or clipped flush with back of angle after forms are removed.

CROSS SECTION

W. B. ADWY.

E. B. RDWY.

SECTION AT ABUTMENTS

PLAN

PLAN

PLAN

DETAIL OF PINTLE

DETAIL OF BEARING
AT PIER 1, 3
& ABUTMENTS

DETAIL OF BEARING
AT PIERS
2 & 4

DETAIL OF SPLICE

Diaphragm	m	@ 5 ft	Reps
D-2	7 1/2	G	12
D-3	7 1/2	H	12
D-4	5 1/2	A	6
D-5	5 1/2	G	18
D-6	5 1/2	H	18

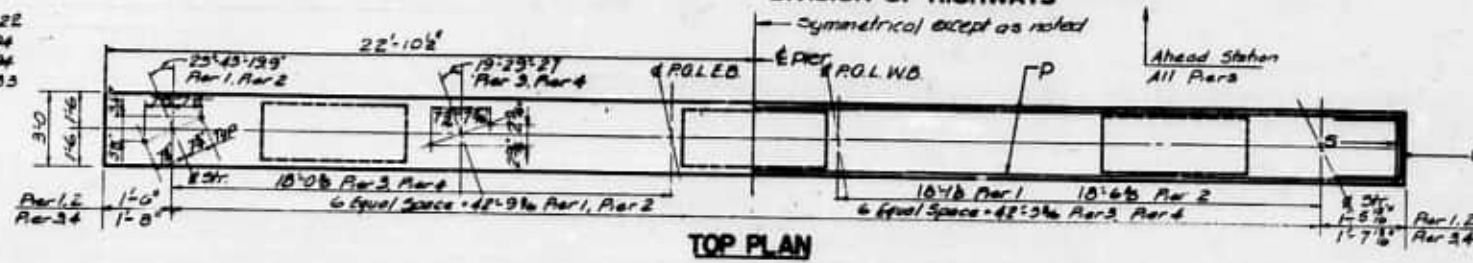
DESIGNED	AME & JH
CHECKED	JTL
DRAWN	AME & J. J. M.
CHECKED	JTL

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

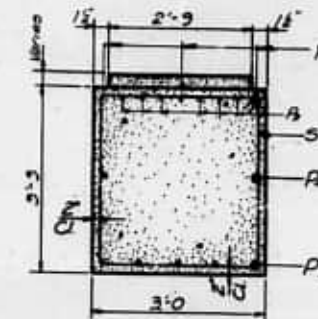
DATE	BY	CHKD	APPD	NO.
12-18-31	W.B.	W.B.	W.B.	80
12-18-31	W.B.	W.B.	W.B.	80

SHEET NO. 6
10 SHEETS

P.G.L. Pier 1 Sta 363+70.32 Elev 609.22
P.G.L. Pier 2 Sta 364+25.12 Elev 607.94
P.G.L. Pier 3 Sta 365+31.60 Elev 609.94
P.G.L. Pier 4 Sta 365+87.20 Elev 608.83

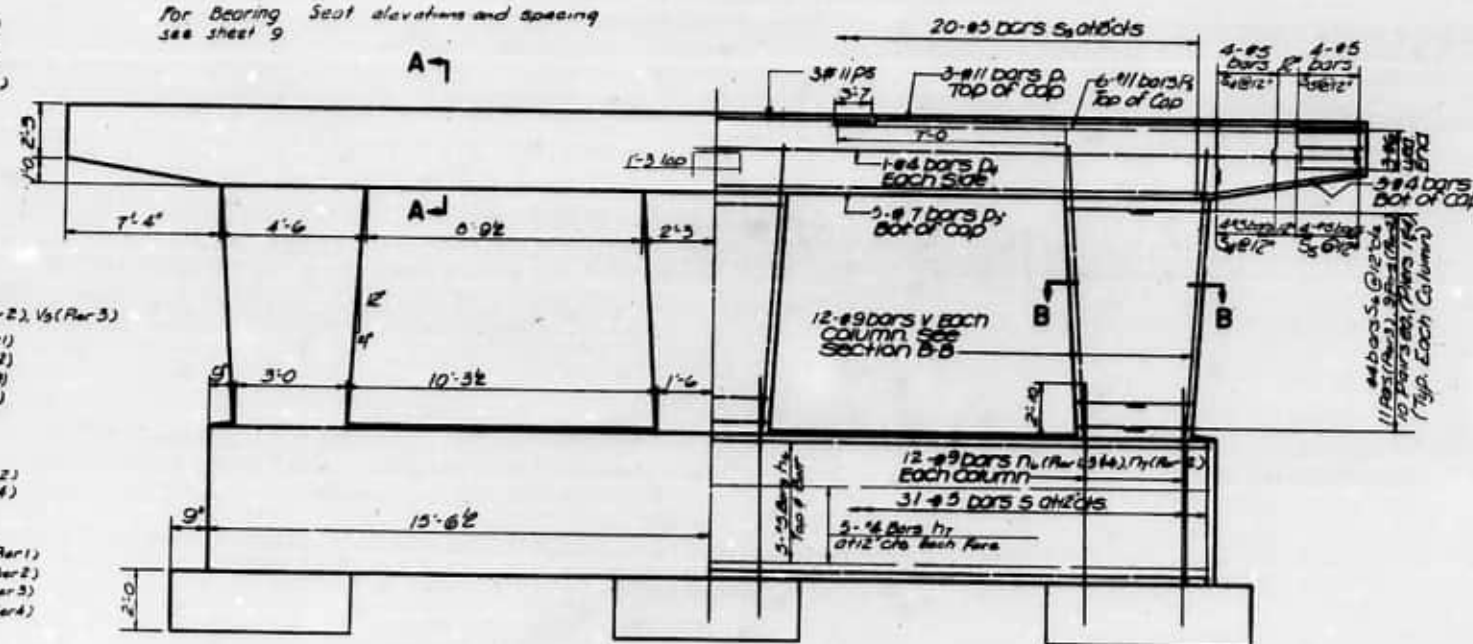


TOP PLAN



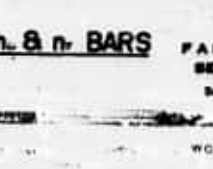
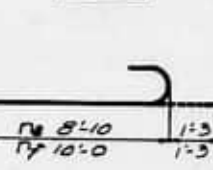
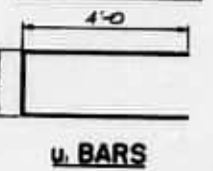
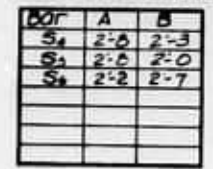
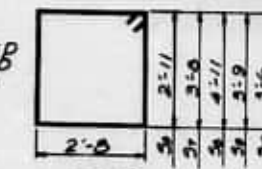
SECTION A-A

For Bearing Seat elevations and spacing
see sheet 9



ELEVATION

REINFORCEMENT
Note: Footings shall extend
1'-0" Minimum into sound rock
Maximum rock bearing
pressure = 5 Tons/sq. ft.



4 PIERS
BILL OF MATERIAL

BAR	NO.	SIZE	LNTH	QTY
P1	40	#5	30'-9"	—
P2	40	#5	30'-9"	—
P3	100	#5	10'-1"	—
P4	36	#5	11'-3"	—
P5	12	#11	30'-0"	—
P6	24	#4	6'-10"	—
P7	12	#11	17'-6"	—
P8	40	#11	10'-4"	—
P9	20	#7	3'-7"	—
P10	16	#4	2'-0"	—
S1	60	#5	12'-3"	—
S2	64	#5	7'-2"	—
S3	64	#5	7'-0"	—
S4	960	#5	7'-4"	—
S5	31	#5	13'-8"	—
S6	31	#5	16'-2"	—
S7	31	#5	13'-0"	—
S8	31	#5	13'-4"	—
U1	24	#5	10'-0"	—
U2	72	#5	12'-3"	—
U3	36	#5	11'-0"	—
U4	36	#5	13'-1"	—
W1	192	#4	5'-6"	—
Reinf. Bars		lbs.	32,980	
Class. Concrete				
Pier 1		Cu Yds.	48.5	
Pier 2		Cu Yds.	51.0	
Pier 3		Cu Yds.	30.2	
Pier 4		Cu Yds.	48.3	
Rock Excavation		Cu Yds.	60	

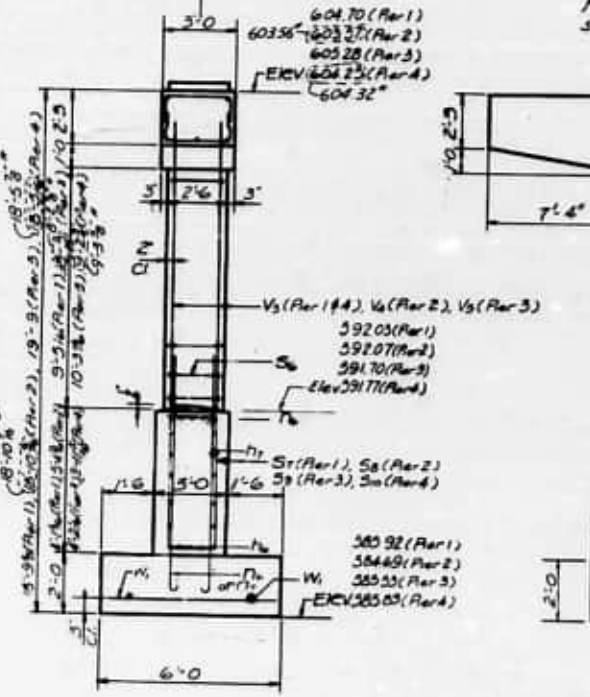
* Each Pier = 15 cu yds.

PIERS
FAI 80 OVER RAMP AB
STA. 363+67.23

FAI ROUTE 80
SECTION 99-3 (STR. 1)
Scale NO SCALE

PROJECT
WILL COUNTY
Date Nov. 30, 1931

BLACK & WHITE ENGINEERING
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.



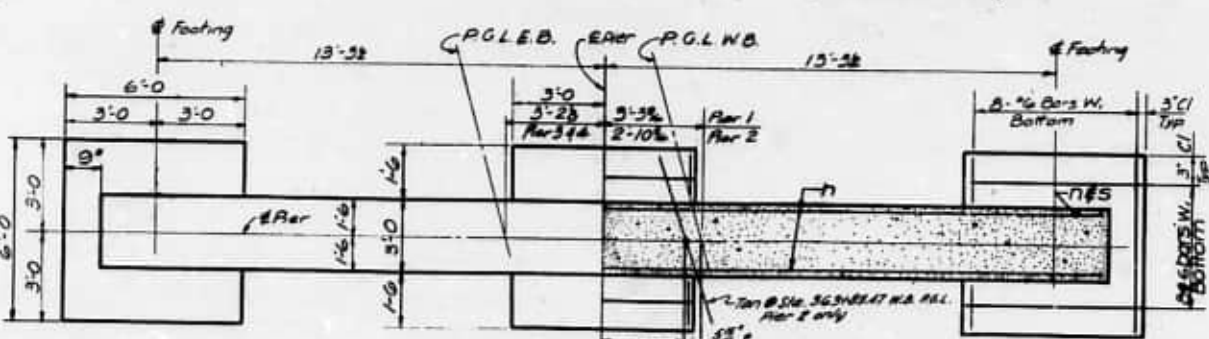
END VIEW

Note All edges shall have
standard 3/8" chamfer
except footing



SECTION B-B

DESIGNED	GF
CHECKED	LD
DRAWN	TLL
CHECKED	FL



FOOTING PLAN

* See Elevations and Dimensions
As Awarded

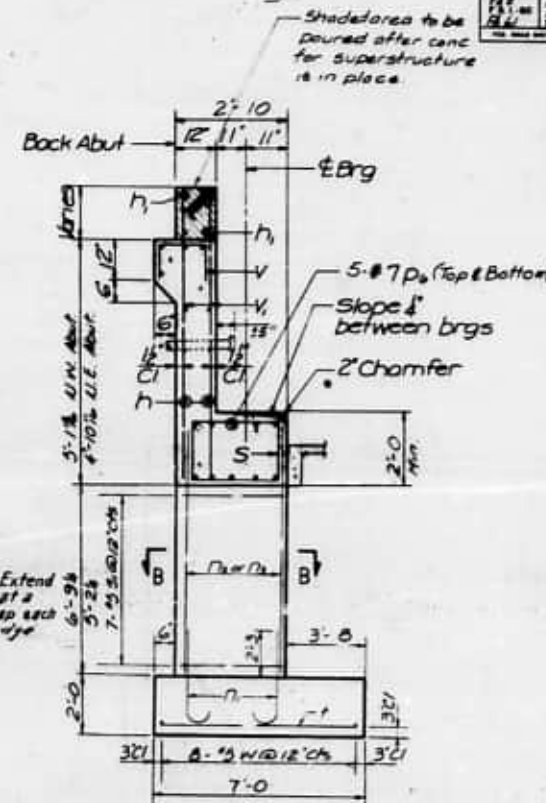
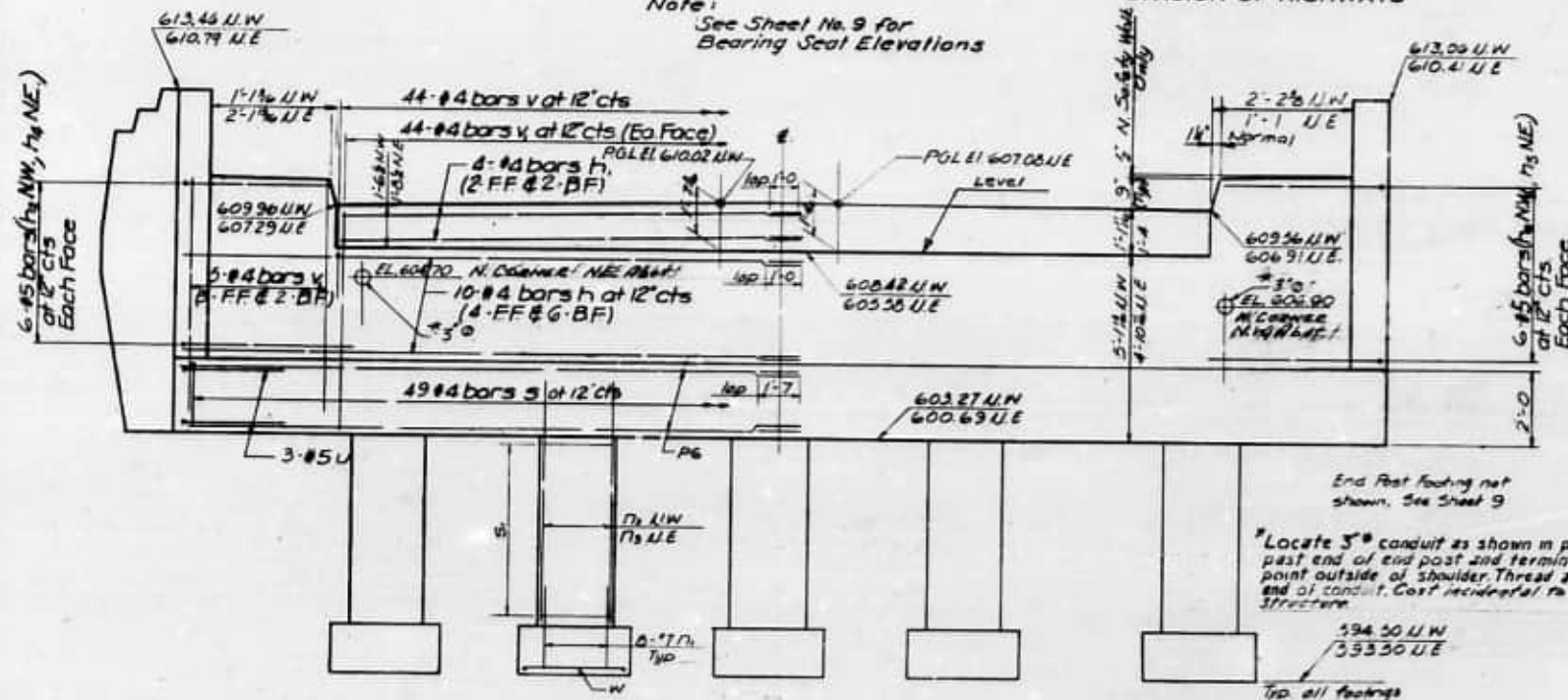
Increased per cap length by 8" additional Cap Conc. * 0.8 cu yd per pier 11-10-34 L.W.

3HB-1

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

DATE	BY	CHKD	APPD	SHEET NO.	TOTAL SHEETS
11/1/61	99-3	WLL	197	81	10 SHEETS

Note:
See Sheet No. 9 for
Bearing Seal Elevations



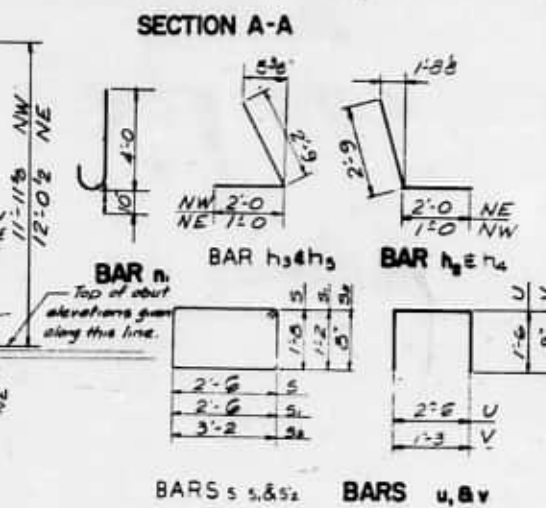
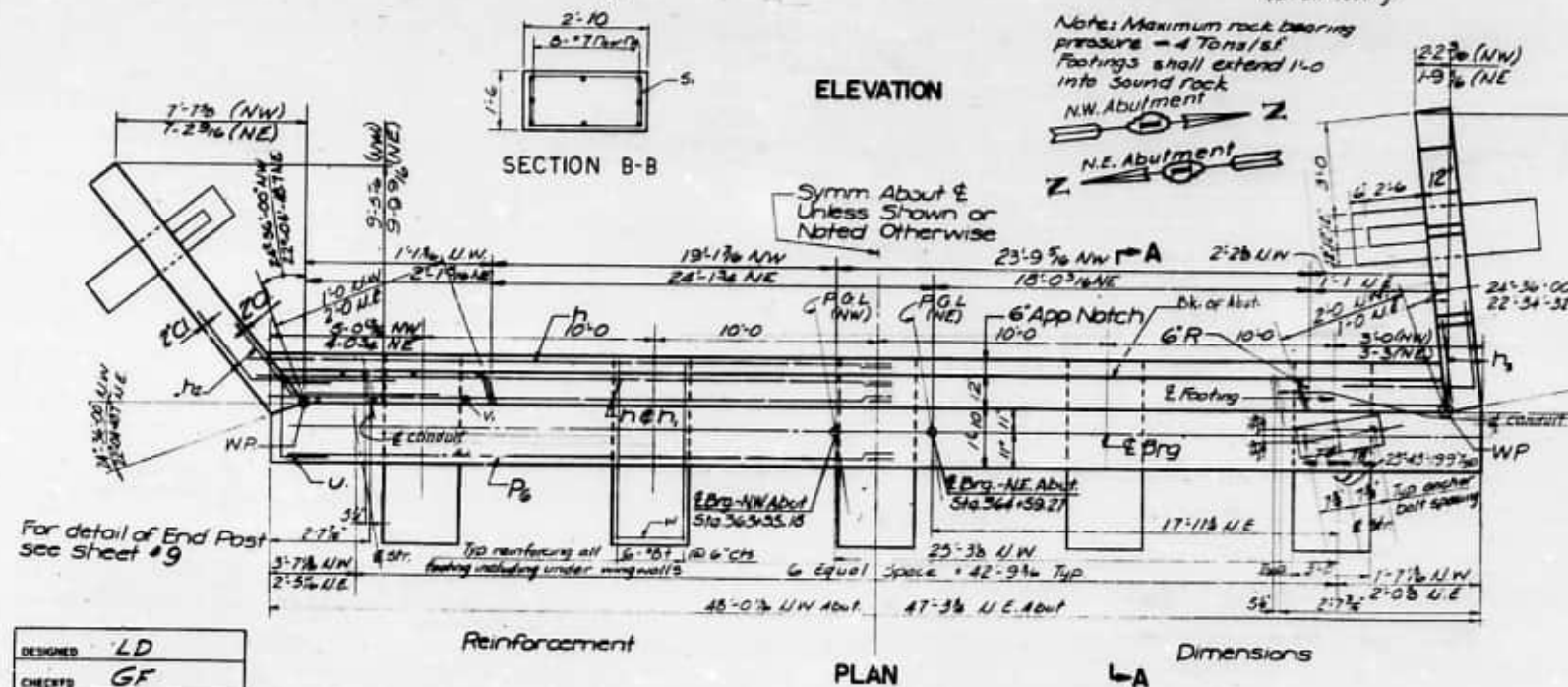
2 ABUTMENTS
BILL OF REINFORCEMENT

Bar	No	Size	Length	Shape
h	40	#4	24'4"	
h1	14	#4	21'9"	
h2	12	#5	4'9"	
h3	12	#5	4'9"	
h4	12	#5	3'9"	
h5	12	#5	3'9"	
n	104	#7	4'10"	
n1	52	#7	8'7"	
n2	52	#7	7'0"	
p	40	#7	24'7"	
s	96	#4	9'2"	
s1	70	#5	8'4"	
s2	20	#5	8'8"	
v	80	#4	2'9"	
v1	196	#4	5'10"	
u	12	#5	5'6"	
t	84	#5	6'6"	
w	112	#5	2'6"	

2 ABUTMENTS
BILL OF MATERIAL

Item	Unit	Quan
Reinforcement Bars	Lbs	11120
Class X Concrete	Cu Yds	48.6
N.W. Abut.	Cu Yds	48.6
N.E. Abut.	Cu Yds	48.3
Rock Excavation	Cu Yds	5
N.W. Abut.	Cu Yds	5
N.E. Abut.	Cu Yds	14
Class A Excavation	Cu Yds	670
N.W. Abut.	Cu Yds	670
N.E. Abut.	Cu Yds	750

Note: Bill of Material
includes Reinforcement
and Class X Concrete
for End Posts.

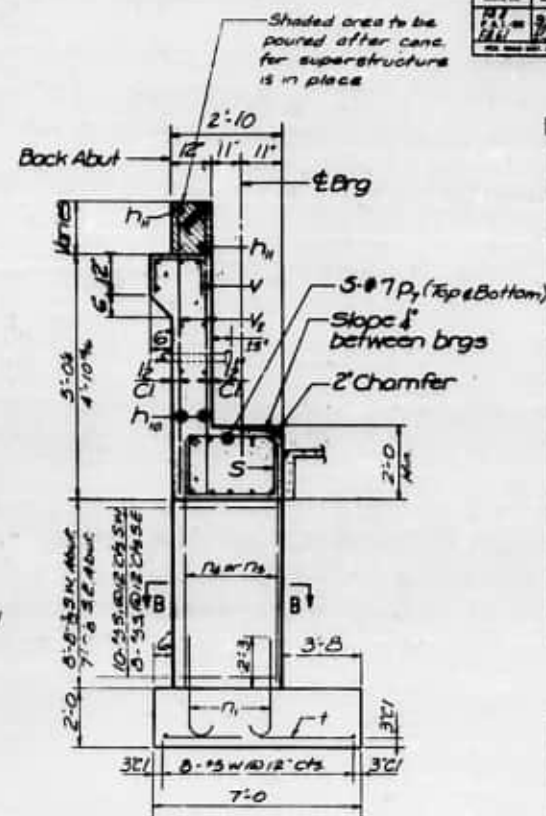


DESIGNED	LD
CHECKED	GF
DRAWN	JTL
CHECKED	JTL

NW & NE
ABUTMENTS
FAI 80 OVER RAMPAB
STA. 363+67.23
PROJECT
WILL COUNTY
Date Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.



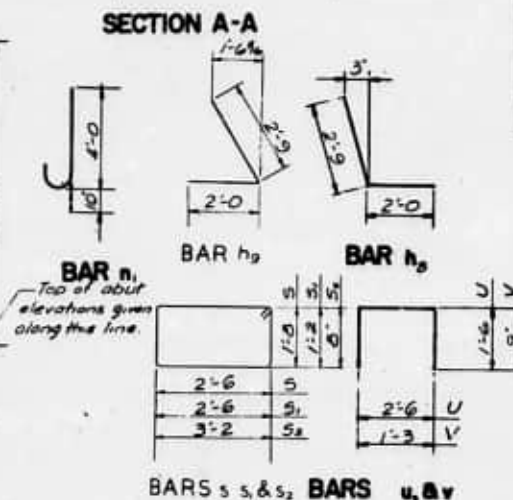
Shaded area to be poured after cane for superstructure is in place



Bar	No	Size	Lgth	Shape
H ₂	24	"3	4'-9	└
H ₃	24	"3	4'-9	┐
H ₁₀	40	"4	23'-9	—
H ₁₁	16	"2	21'-0	—
P ₁	104	"7	4'-10	└
P ₄	32	"7	10'-6	—
P ₉	32	"7	8'-10	—
P ₂	40	"7	24'-0	—
S	36	"4	9'-2	□
S ₁	20	"3	8'-4	□
S ₂	36	"3	8'-8	□
V	84	"2	2'-9	┐
V ₂	188	"2	5'-11	—
U	12	"3	5'-6	□
T	84	"3	6'-6	—
W	112	"3	2'-6	—

Item	Unit	Quan
Reinforcement Bars	Lbs	11680
Class 5 Concrete		
S.W. Abut	Cu Yds	47.2
S.E. Abut	Cu Yds	43.4
Rack Excavation		
S.W. Abut	Cu Yds	11
S.E. Abut	Cu Yds	16
Class A Excavation		
S.W. Abut	Cu Yds	650
S.E. Abut	Cu Yds	600

Note: Maximum Rock Bearing Pressure = 4 Tons/sq. Footings shall be extended 1'-0" into sound rock.



Reinforcement
Brg. SE Abut.
Sta 364+25.46

Dimensions

SW & SE
ABUTMENTS
FAI 80 OVER RAMP AB

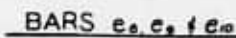
STA. 363+67.23
FAIR ROUTE 80
SECTION 99-5
Str. 7)
Scale: NO SCALE
PROJECT
WILL COUNTY
Date: Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

DESIGNED	LD
CHECKED	GF
DRAWN	T.L.L
CHECKED	JTL

Barnes: 100% 7th from mid rd GSE; 90% 8th to 10th juv.
Road end post for 10' rail (gutter over plus 2'-6") 11-12-04 L.D.W.
Additional Conc. = 0.2 cu yd per value.



BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBRUT, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.



No Existing Structure

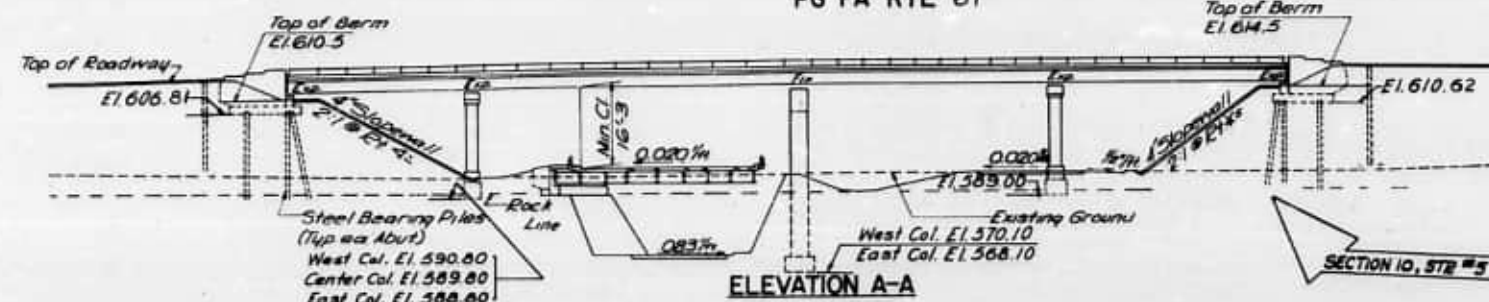
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

Approach Slab for Sec. 10 (5fr. 5)
ends at Sta. 60+16 and Approach
Slab for Sec. 99-3 (5fr. 6) begins
at Sta. 60+16.

PK1512338-60
E1 625.59
VC-1600
MO-8.13

HOUSE NO.	SECTION	PROJECT	TOTAL SHEETS	SHEET NO.
11-80	99-3	WILL	197	85
THIS SCALE SHEET NO. 7		DATE	10-4-22	33

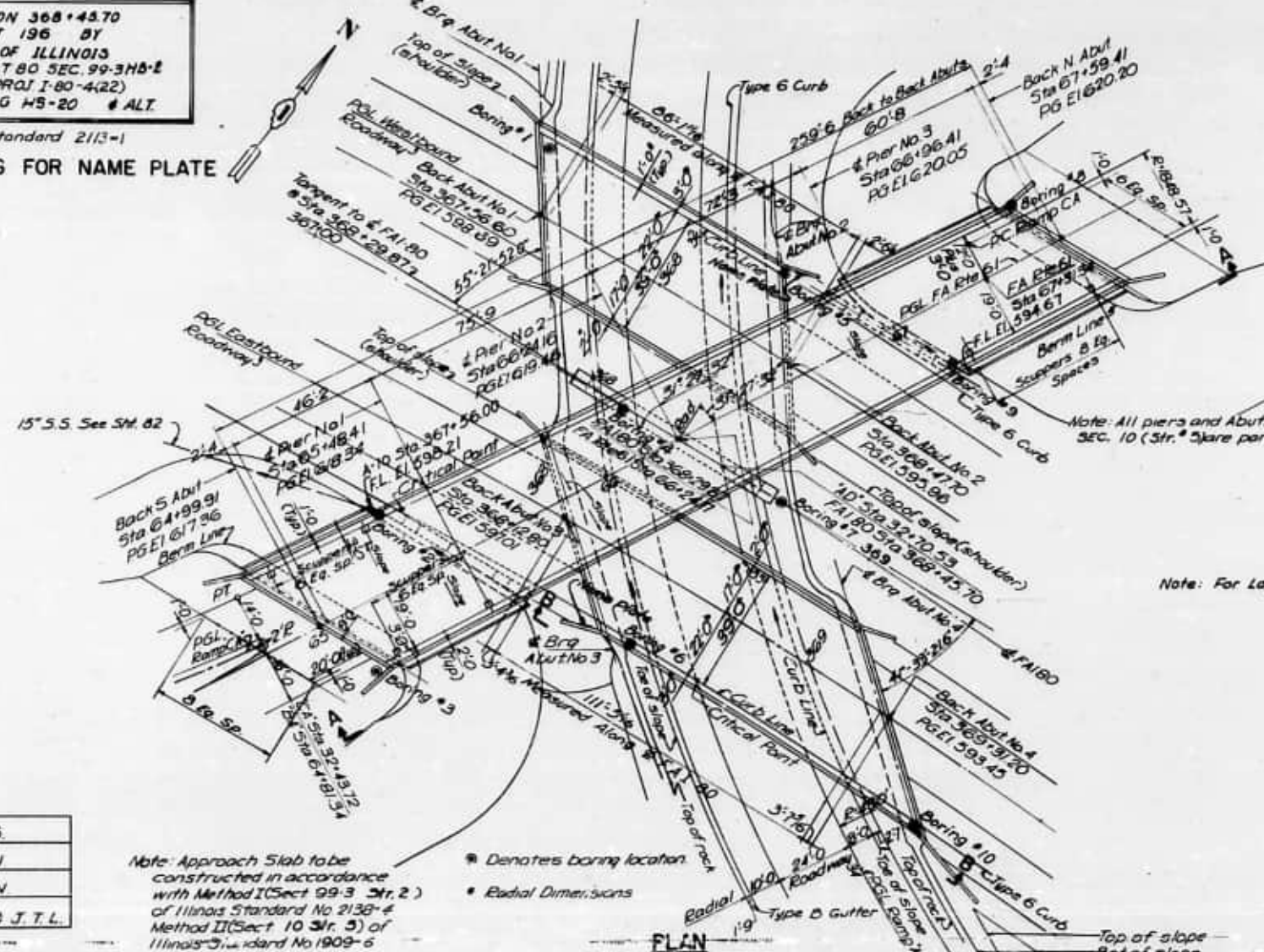
SHEET NO. /
/2 SHEETS



STATION 368+45.70
BUILT 196 BY
STATE OF ILLINOIS
FAL RT 80 SEC. 99-3HS-E
FA. PROJ I-80-4(22)
LOADING HS-20 # ALT.

See Standard 2113-1

LETTERING FOR NAME PLATE



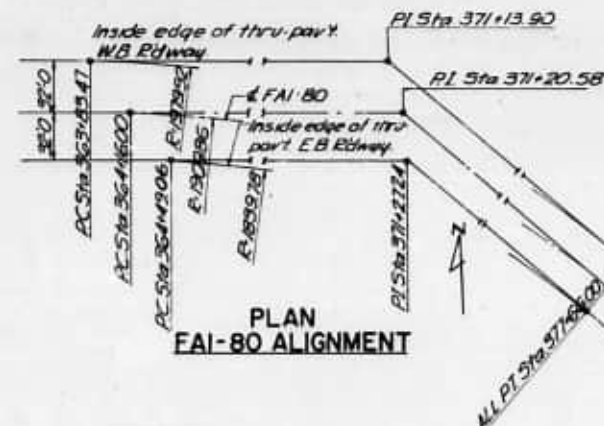
Note: Approach Slab to be constructed in accordance with Method I (Sect 99-3 31r. 2) of Illinois Standard No 2138-4 Method II (Sect 10 31r. 3) of Illinois Standard No 1909-6

- Denotes boring location
- Radial Dimensions

Top of Berm # Bott of Abut. PG FAI 80 Top of Berm # Bott of Abut.
WB-N Side El 589.80 WB-N Side El 589.20
S Side El 590.30 S Side El 587.60
EB-N Side El 589.60 EB-N Side El 586.20
S Side El 587.40 S Side El 583.90

Type B Gutter

ELEVATION B-B



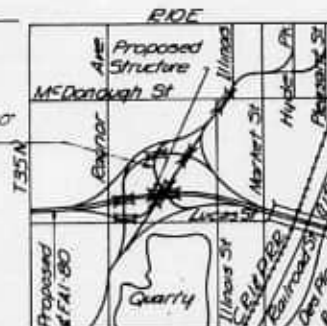
PLAN
FAI-80 ALIGNMENT

Sta 30+72.75
E1.573.01,
VC=200',
MO=1.52'

PG RAMP "AD"

Note: This route has been selected as a vertical clearance route.

Note: For Layout See Sheet No. 2



LOCATION SKETCH

GENERAL PLAN & ELEVATION
FAI-80 OVER RAMP AD
STA.368+45.70

FAI ROUTE 80 PROJECT I-80-4(22)-133
SECTION 99-3H-B-2 WILL COUNTY
STR 2
Scale: NO SCALE Date: NOV 30, 1961

BLAUVELT ENGINEERING CO
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

Prepared And Recommended
By Blauvelt Engineering Co.
Structural Engineer
#81-2251
Ben H. Wengert

ROUTE NO.	SECTION	CORRECTION	TOTAL SHEETS	SHEET NO.
PA 100-3	100-3	WILL	197	86
TOTAL SHEET NO. 7		CHECKED	REMARKS	

SHEET NO. 2
12 SHEETS

STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS FOR
STRUCTURAL STEEL, A.S.T.M. DESIGNATION A36.

CLASS I CONCRETE SHALL BE USED THROUGHOUT. COARSE AGGREGATE USED IN PARAPETS AND END POSTS SHALL BE FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

ALL WELDING SHALL COMPLY WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, OF THE AMERICAN WELDING SOCIETY AND THE SPECIAL PROVISIONS.

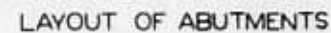
ANCHOR BOLTS SHALL BE SET BEFORE CONNECTING DIAPHRAGMS OVER
SUPPORT. SPACE REINFORCING TO MISS ANCHOR BOLTS.

EXCEPT AS OTHERWISE PROVIDED, ALL STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE STANDARD SPECIFICATIONS.

PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING
CONCRETE FLOOR.

Excavation for portions of structures in the embankments shall not be classified.

$f_c = 3,500 \text{ psi}$
 $f_s = 20,000 \text{ psi}$
 $n = 10$
 $f_c = 1,400 \text{ psi. (Except Footings)}$
 $f_c = 1,000 \text{ psi. (Footings)}$
 $v_c = 90 \text{ psi. (Except Footings)}$
 $v_c = 75 \text{ psi. (Footings)}$
Structural Steel:
 $f_s = 20,000 \text{ psi}$
Maximum Soil Pressure = 3 1/2 Tons/
Leading: HS-20-44 # All.

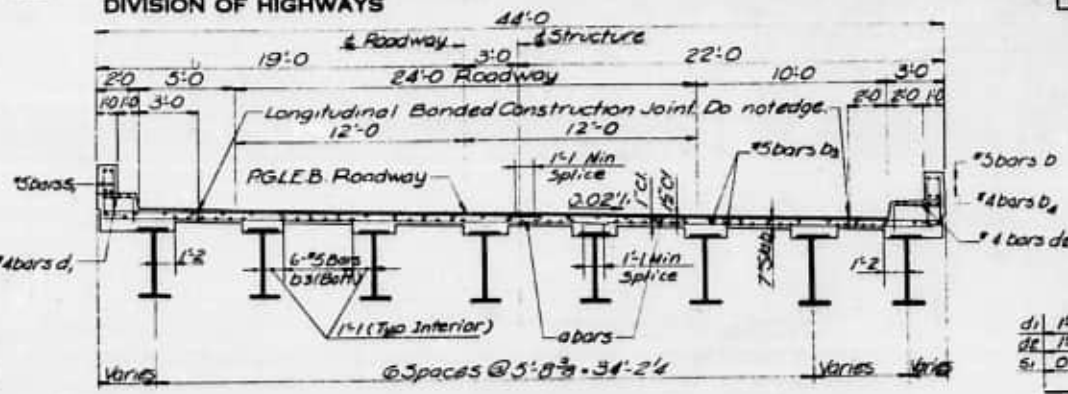


Section 99-3 (Str. 2)

[illegible]

WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

DESIGNED	G.F.
CHECKED	J.T.L.
DRAWN	J. J. M.
CHECKED	J.T.L.



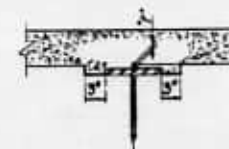
E.B. ROADWAY

* Place 2-#5 S. bars at each handrail post on inside (roadway) face of parapet (92 S. bars included for posts.)

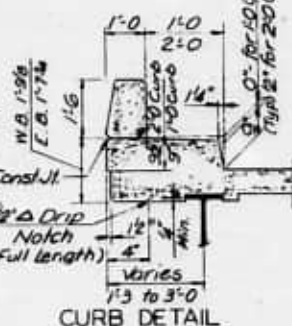
Bar	No	Size	Length	Shape
01	492	3	22-4	
02	246	3	23-0	
03	246	3	19-8	
04	3/2	3	21-0	
05	3/2	3	23-6	
06	8	3	27-6	
07	4	3	32-9	
08	4	3	35-0	
D1	222	3	30-10	
D2	30	4	30-10	
D3	296	3	28-11	
D4	40	4	28-11	
D5	8	3	15-3	
D9	8	3	15-10	
D7	24	3	19-2	
D8	8	3	14-7	
D9	8	3	14-10	
D10	16	3	17-10	
D11	16	3	18-6	
D12	4	3	8-9	
D13	4	3	8-1	
d1	137	4	2-9	
d2	137	4	3-9	
s1	9/2	5	2-10	

Class "X" Concrete	Cu.Yd.	260.3
Reinforcement Bars	Lbs.	60,490
Structural Steel**	Lbs.	419,890

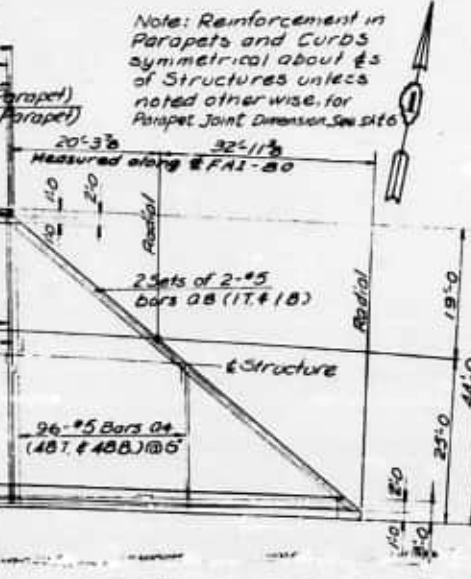
Structural Steel includes weight of
Backers, Bolsters, Bearing Plates, Lead
Plates, Pintles and Anchor Bolts
Estimated Wt. = 10.537*



METHOD OF DETERMINING FILLET HEIGHT 'r'



CURB DETAIL



Note: Reinforcement in Parapets and Curbs symmetrical about ϕ s of Structures unless noted otherwise, for Parapet Joint Dimension See site

ELEVATIONS - TOP OF SLAB *** Elevations are not adjusted for dead load deflections.											
Station	1	2	3	4	5	6	7	8	9	10	11
51	599.68	599.28	598.98	598.68	598.38	598.08	597.78	597.49	597.19	596.96	
52	599.36	598.96	598.75	598.45	598.15	597.86	597.56	597.26	596.96	596.73	
53	599.13	598.83	598.53	598.23	597.93	597.63	597.33	597.03	596.74	596.51	
54	598.91	598.61	598.30	598.00	597.70	597.40	597.10	596.80	596.51	596.28	
55	598.68	598.38	598.08	597.77	597.47	597.17	596.87	596.57	596.28	596.05	
56	598.46	598.15	597.85	597.55	597.24	596.94	596.64	596.34	596.05	595.81	
57	598.23	597.93	597.62	597.32	597.02	596.71	596.41	596.11	595.82	595.58	
58	598.00	597.70	597.39	597.09	596.79	596.48	596.18	595.88	595.58	595.35	
59	597.85	597.54	597.23	596.92	596.61	596.30	596.00	595.69	595.39	595.09	594.78
60	597.53	597.22	596.91	596.60	596.29	595.98	595.68	595.38	595.07	594.77	594.47
61	597.22	596.91	596.60	596.29	595.98	595.67	595.36	595.06	594.76	594.45	594.15
62	596.90	596.59	596.28	595.97	595.66	595.35	595.05	594.74	594.44	594.14	593.83
63	596.59	596.27	595.96	595.65	595.34	595.04	594.73	594.42	594.12	593.82	593.52
64	596.27	595.96	595.65	595.33	595.03	594.72	594.41	594.11	593.80	593.50	593.19
65	595.95	595.64	595.33	595.02	594.71	594.40	594.09	593.79	593.48	593.18	592.88
66	595.69	595.37	595.06	594.75	594.43	594.12	593.82	593.51	593.20	592.90	592.59

Where curb is over stringer, elevation shown is that of the projection of top of slab along its cross slope.
See sheet 4 for locations of points.

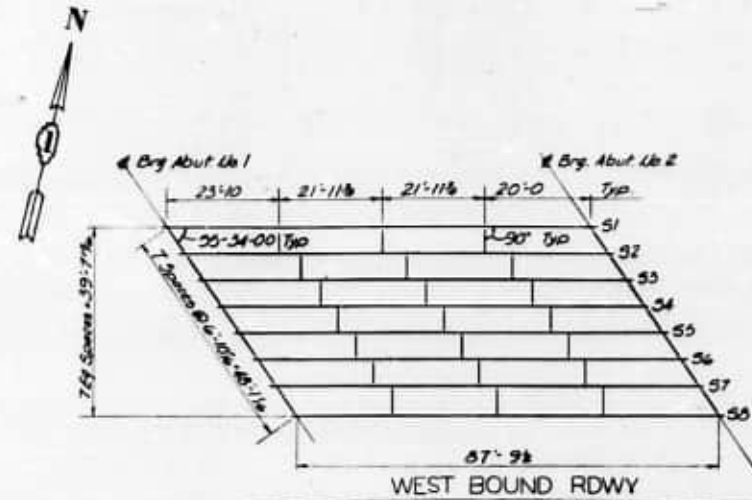
SLAB PLAN & CROSS-SECTION
FAIRBO OVER RAMP AD

FAIR ROUTE 80 PROJECT
SECTION 99-3 (STR.#2) WILL COUNTY
Scale None Date Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

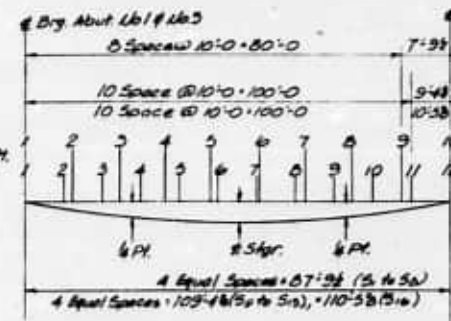
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	BY	CHECKED	APPROVED	SHEET NO.
11/17/61	199-3	WLL	177	88
11/17/61	199-3	WLL	177	88

12 SHEETS

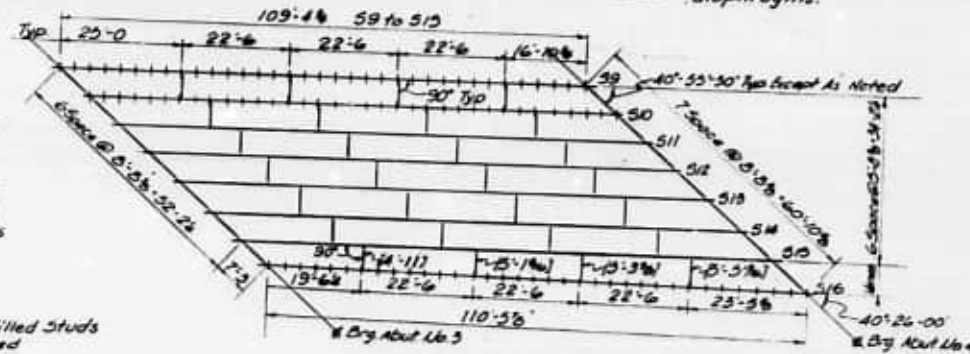


Note:
E. B. interior stringer intermediate stiffeners shown are typical for all E. B. interior stringers.
Flange and web splices to clear intermediate stiffeners by 1'-0". Intermediate stiffeners to be spaced equally between cross frames with number as shown on framing plan.



DEAD LOAD DEFLECTION DIAGRAM

Dimensions shown thus [] are c. to c. stringers along diaphragms.

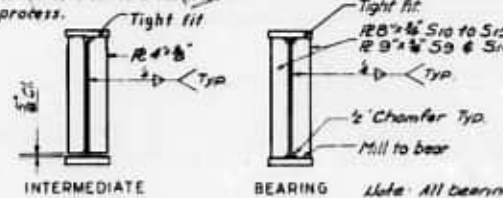


EAST BOUND RDWY
FRAMING PLAN

SHEAR CONNECTOR DETAILS

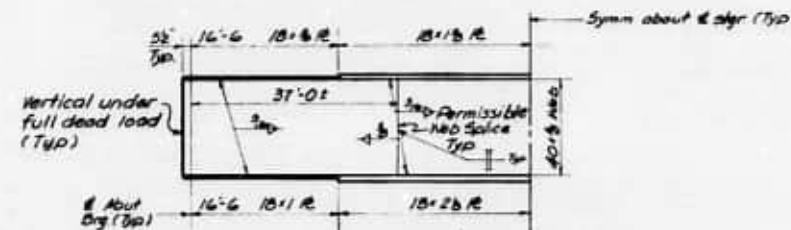
Shear connectors included in quantity of structural steel.
Welding Notes: See Special Provisions for Welding.
The contractor shall submit to the Engineer for his approval a welding procedure for the fabrication of all parts.
All welding shall be done in accordance with the "Standard Specifications for Welded Highway and Railway Bridges". The contractor shall provide the proper weld details as provided in paragraphs 221 or 220 (preference shall be given to detail as per paragraph 221) in accordance with the welding procedure and positions that are approved by the Engineer.
Preference shall be given to flat position welding where feasible. In general all welded splices in webs and flanges shall be made before welding flanges to webs.
Stringer sections shall be assembled for position holding with adequate supports to maintain proper dimensions and alignments and to hold distortion to a minimum.
All welding shall be by the submerged arc process.

DESIGNED	G. F.
CHECKED	R. H. W.
DRAWN	T. L. L.
CHECKED	G. F. & J. T. L.

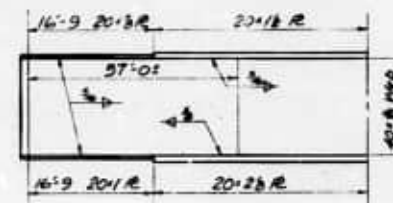


STIFFENER DETAILS

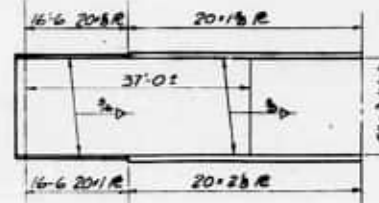
Note: All bearing stiffeners to be welded. All intermediate stiffeners to be normal to flanges.



STRINGER S10 TO 15



STRINGER S9



STRINGER S16

Location of Pts for top of slab elevations

SPR.	PT.	4 Pts.	8
S1	176	252	
S2 to S3	176	176	
S4	176	176	

Deflections for W.B. stringers are for concrete only.

E. B. STRINGERS

SPR.	Steel	Conc.	Total	Steel	Conc.	Total
S1	252	252	504	176	252	428
S2 to S3	176	176	352	176	252	428
S4	176	252	428	176	252	428

E. B. Stringers shall be cambered for total dead load deflection.

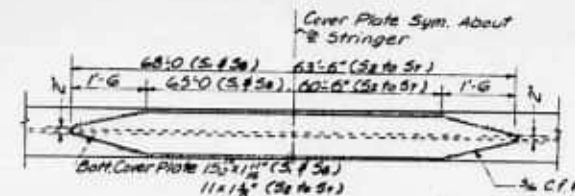
DEAD LOAD DEFLECTIONS

SPR.	PT.	Abuts 143	Abuts 244
S1	598.98	596.36	
S2	598.76	596.13	
S3	598.53	595.91	
S4	598.31	595.68	
S5	598.08	595.45	
S6	597.86	595.21	
S7	597.63	594.98	
S8	597.40	594.75	
S9	597.19	593.84	
S10	596.87	593.53	
S11	596.56	593.21	
S12	596.24	592.89	
S13	595.93	592.57	
S14	595.61	592.25	
S15	595.29	591.93	
S16	595.02	591.60	

ELEVATIONS
TOP OF BEAM

SPR.	Mark	5:30	Shear Connector	0	D	C
S1	36" x 260	9 1/2"	14"	15"	18"	
S2 to S3	36" x 194	9 1/2"	14"	15"	18"	
S4	See Detail This Sheet	11"	10"	15"	9"	18"

BEAM SCHEDULE &
SHEAR CONNECTOR SPACING



DETAIL OF COVER PLATE



Note: Electrodes conforming to either the E60XX or the E70XX series of Tentative Specifications for Mild Steel Arc Welding Electrodes (AWS Designation A5.1; ASTM Designation A233) shall be used for A36 steel in thicknesses of 1/2 inch or less. Only E70XX low hydrogen electrodes shall be used on thicknesses of A36 steel over 1/2 inch.

FRAMING PLAN & STEEL DETAILS
FAI 80 OVER
RAMP AD

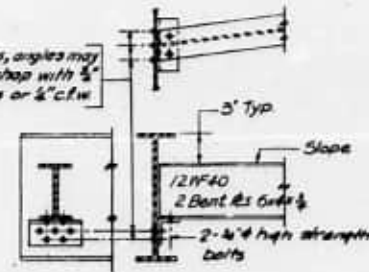
STA. 368+45.70
FAI ROUTE 80
SECTION (STR. 2)
Scale: NO SCALE
PROJECT
WILL COUNTY
Date: Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS

DATE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1978 F.A.I. PO F.A.I.	GG-5 77 77-2	WILL	197	89
PER. NAME (OFF. NO.)				

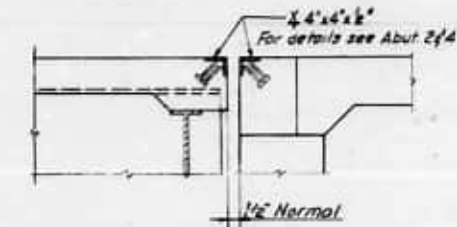
SHEET NO. 5
12 SHEETS

In lieu of shop rivets, angles may be attached in the shop with $\frac{1}{2}$ " high strength bolts or $\frac{1}{2}$ " c.f.w.



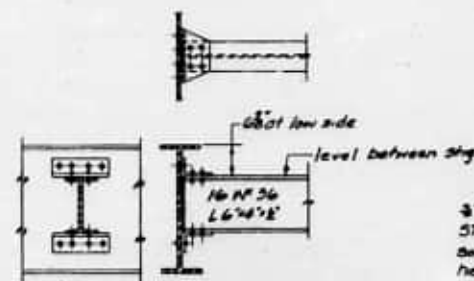
DIMENSIONS FOR BEARINGS

Stgr.	Bearing	Tr	To	1'	10	0	2
51 #	Exp	1'	1 1/2	15	206	206	3
30	Fix	1'	1'	15	206	206	3
32 to	Exp	1'	1 1/2	15	208	6 1/2	30
37	Fix	1'	1'	15	208	6 1/2	30
39 4	Exp	1'	1 1/2	21	208	208	3
316	Fix	1'	1'	21	208	208	3
310 to	Exp	1'	1 1/2	19	208	208	3
515	Fix	1'	1'	19	208	208	3



SECTION AT ABUTMENTS

12" Holes for 14" x 12" Anchor Bolts, 22" x 22" x 9/16" Flange Washers under Nut



ANGLE GUARD DETAIL

*D = $\frac{8}{100}$ of exp. for every 1° below the normal temp. of 30°F .
 *D = $\frac{8}{100}$ of exp. for every 1° above the normal temp. of 30°F .

DETAIL OF PINTLE

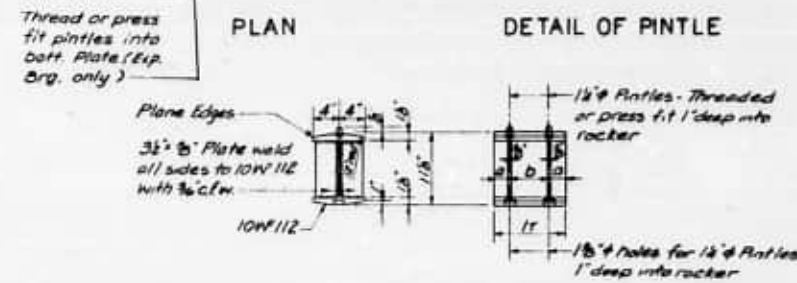


Diagram of the End Cross Frame (For East Bound Riding). The frame consists of a horizontal beam labeled "B.F. 31" supported by two vertical columns. The beam is labeled "Level between girders". The columns are labeled "2' x 2' (Typ.) Bent". The frame is supported by a base labeled "L 3' x 26' x 1/2\"

BEARING & DIAPHRAGM DETAILS
FAI 80 OVER RAMP AD

STA 366+49.70

FAI ROUTE 80
SECTION 99-3
(Str 2)
Scale: No Scale

PROJECT
WILL COUNTY
Date: Nov 30, 1961

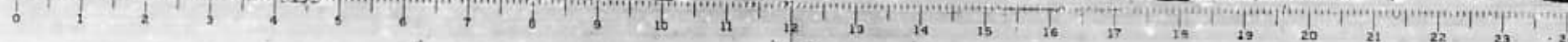
BLAUVELT ENGINEERING CO.

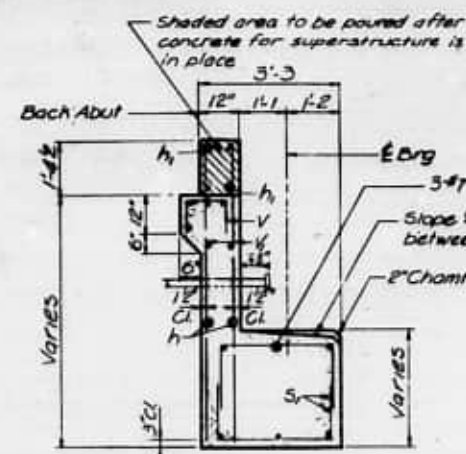
RODOLPH T. J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

DESIGNED	T.L.L.
CHECKED	G.F. & J.T.L.
DRAWN	T.L.L.
CHECKED	G.F. & J.T.L.

2-24-81 *Aviary Intermediate Cross Frame (top view)*
CDS

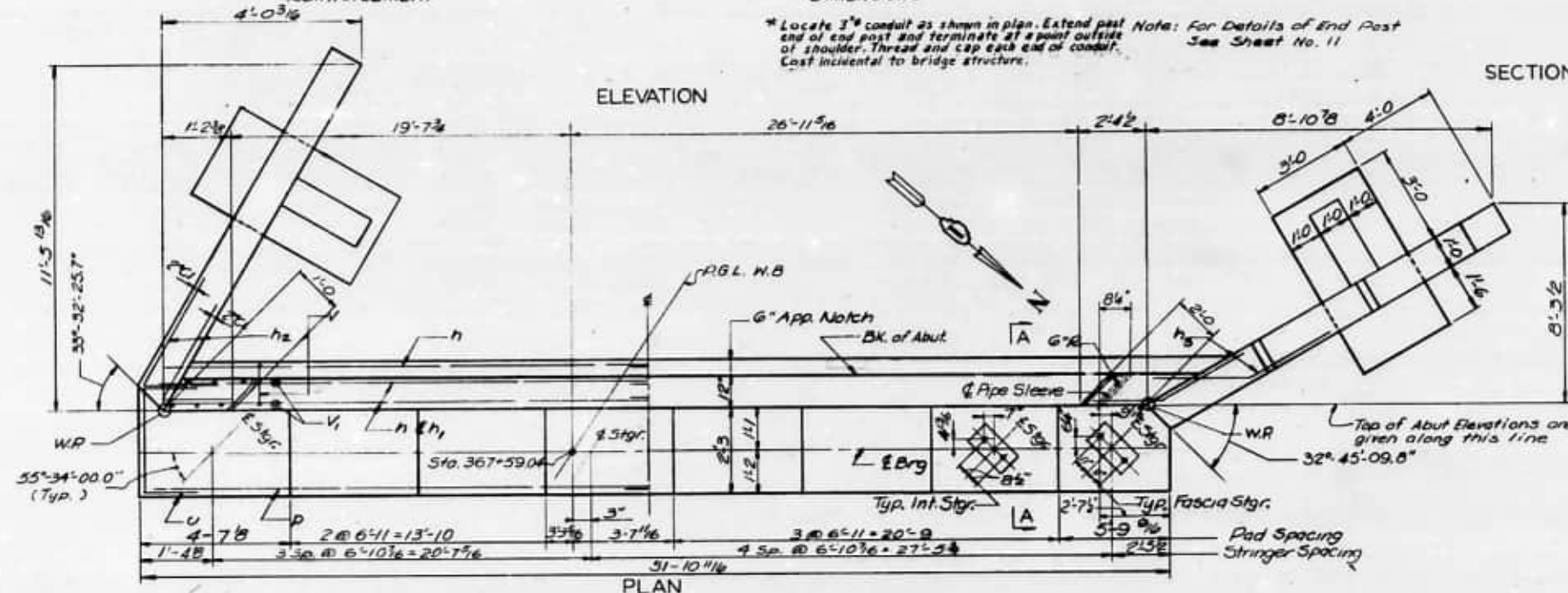
Notes guard angles of courts 1/3 (1480) 100' notes for Lateral Delta and setting up. 11-13-06 L.24



[illegible][illegible]

Item	Unit	Qty
Class X Concrete	Cu Yds	38
Reinforcement Bars	lbs	320
Rock Excavation	Cu Yds	14

*Locate 3" conduit as shown in plan. Extend past end of end post and terminate at a point outside of shoulder. Thread and cap each end of conduit. Cost incidental to bridge structure. Note: For Details of End Post See Sheet No. 11



Note: All footings to be founded on Rock.
Maximum Bearing Pressure = 3.5 Tons/sq'

ABUTMENT NO. 1
FA180 OVER RAMP AD

STA 368+45.70
FAI ROUTE 80
SECTION 99-3
SCALE 1"=40'
PROJECT
WILL COUNTY
Date: Nov-28-08
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBRIDGE, NJ NEW YORK, N.Y. CRYSTAL LAKE, ILL.

DESIGNED	RHW
CHECKED	AME
DRAWN	AME
CHECKED	ITL

Diagram of a rectangular plate with a diagonal bar. The plate has a width of 10 ft and a height of 12 ft. A diagonal bar is shown with a length of 12 ft. The bar is labeled "BAR h₂".

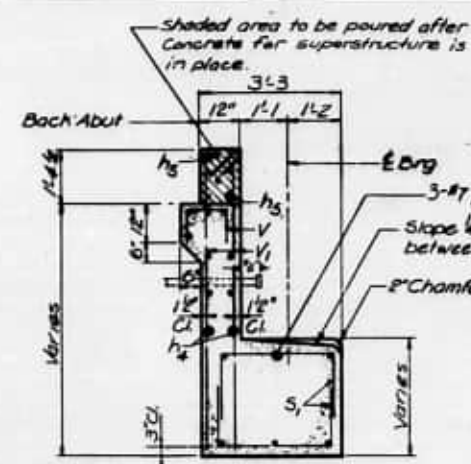
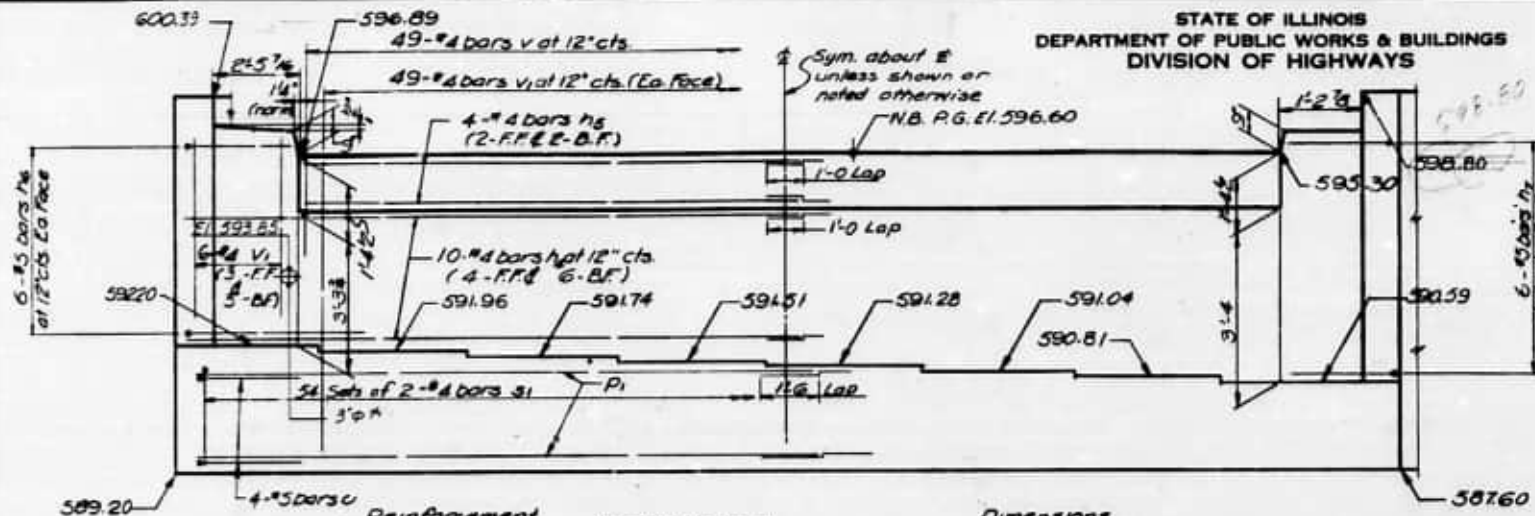
Diagram of a stepped bar with dimensions: horizontal segment 2'0", vertical segment 2'0", and diagonal segment 2'9".

$\begin{matrix} S_L & 2^{1/1} \\ U & 2^{1/0} \\ V & 1^1_3 \end{matrix}$

Based end paste (quitter mix plus 3-4") for new rail, Conc. plus 0.2 cu yds. 11-13-64 L.D.W.

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

SHEET NO. 3
12 SHEETS



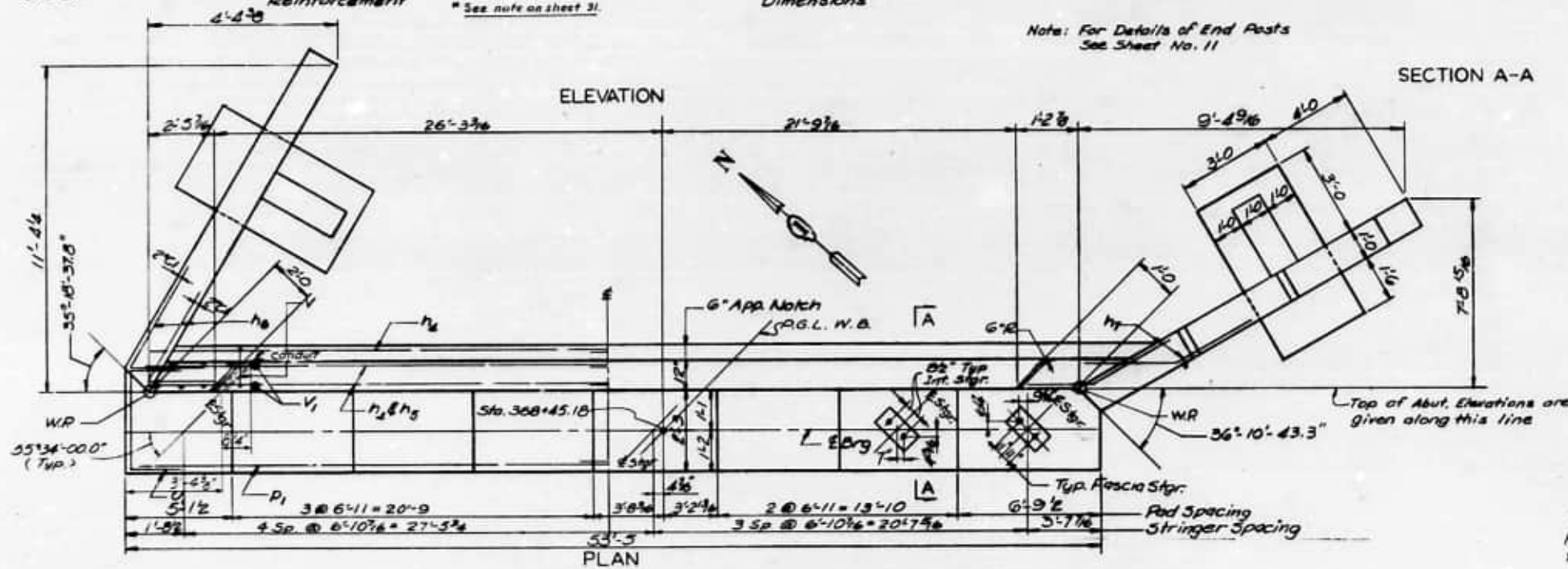
ONE ABUTMENT
BILL OF REINFORCEMENT

Bar	No	Size	Lath	Shape
h4	20	#4	270	
h5	8	#4	246	
h6	12	#5	49	L
h7	12	#5	39	L
P1	12	#7	276	
S1	100	#4	69	
U	8	#5	340	
V	49	#4	219	
VI	110	#4	743	

ONE ABUTMENT
BILL OF MATERIAL

Item	Unit	Quan
Class X Concrete	Cu Yds	38.1
Reinforcement Bars	Lbs	3270
Rock Excavation	Cu Yds	21

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.

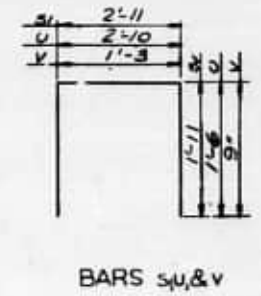
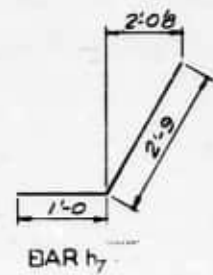


Note: All footings to be founded on Rock.
Maximum Bearing Pressure = 3.5 Tons/sq ft

ABUTMENT NO. 2
FA180 OVER RAMP AD

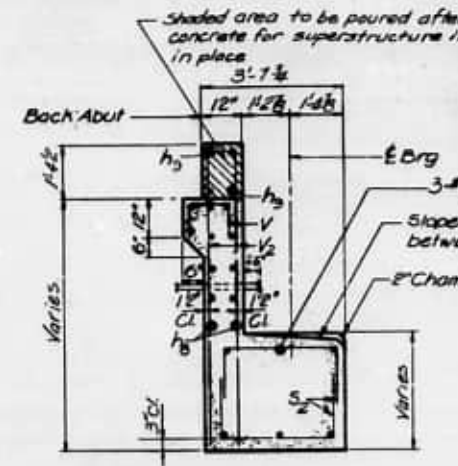
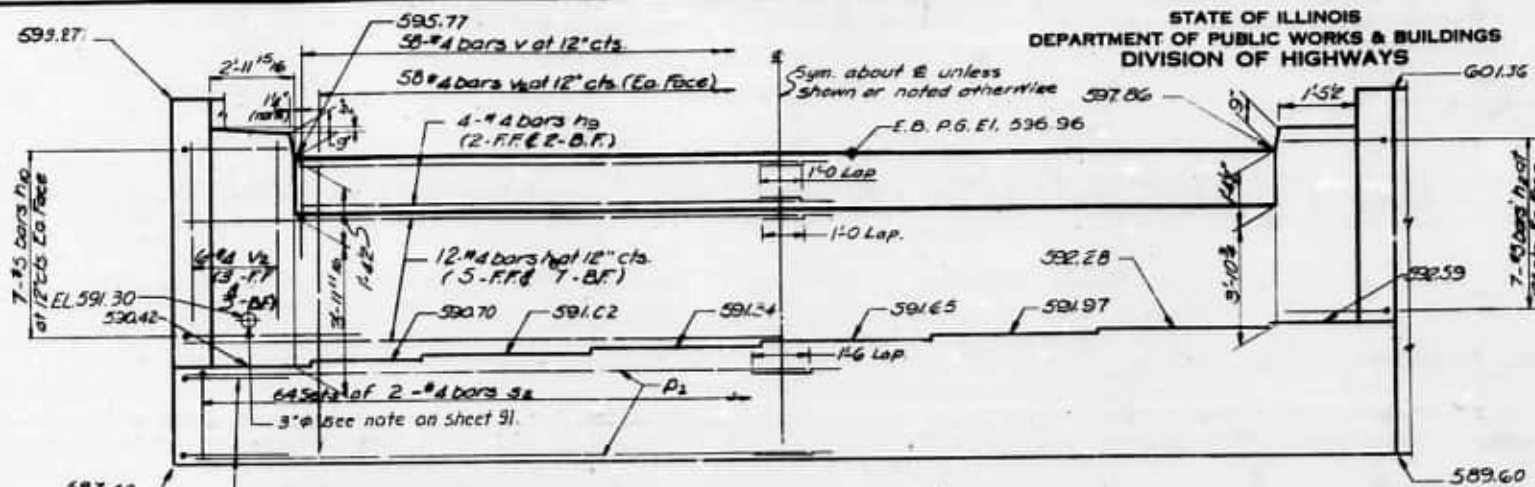
STA 368+45.70
PROJECT
WILL COUNTY
Date: Nov. 30, 1961
J. V. J. ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

DESIGNED: RHW
CHECKED: AME
DRAWN: AME
CHECKED: JTL



11-12-61 J.M.J. REV. C1224 X Cont. from 37.9 to 38.1 cu yds.

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



DATE IN	DATE IN	CHKD	APPD	SCALE
11-16-64	1964-5	AME		
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11-16-64	1964-			

SHEET NO. 9
12 SHEETS

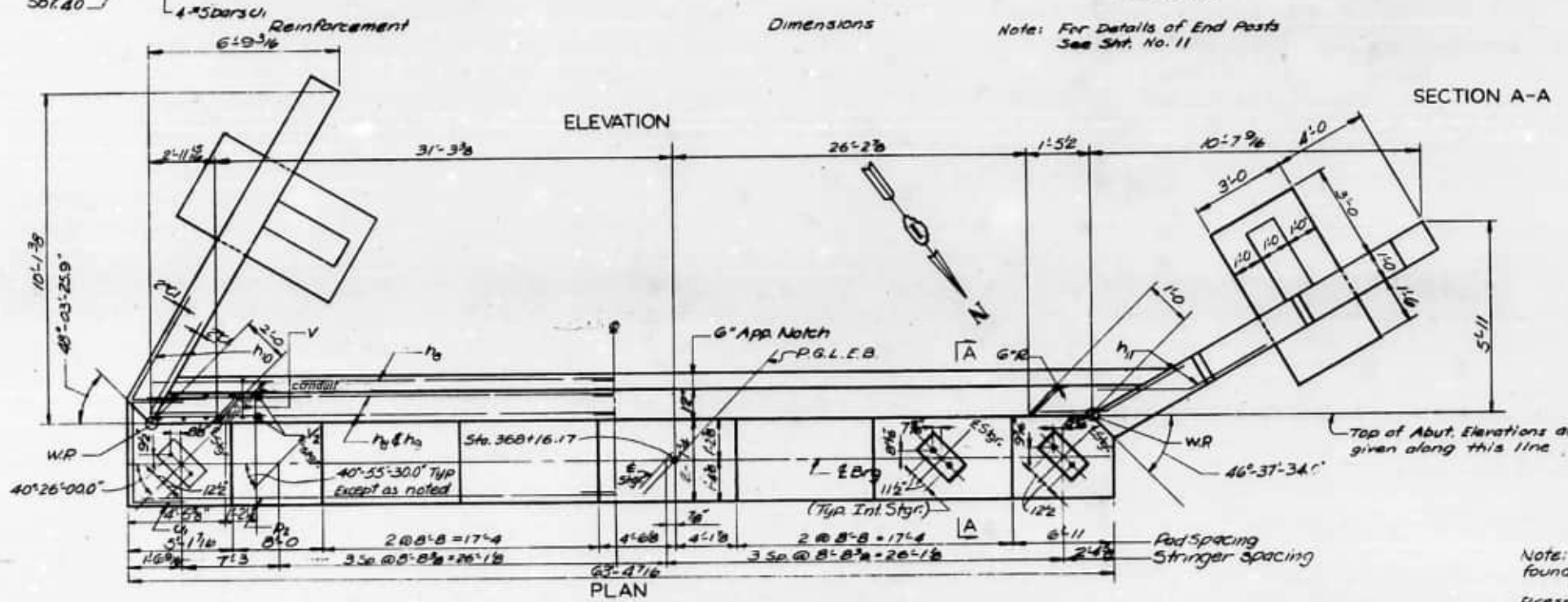
ONE ABUTMENT
BILL OF REINFORCEMENT

Bar	No	Size	Length	Shape
h3	24	#4	32'0"	
h2	8	#4	25'3"	
h1	14	#5	4'9"	
h11	14	#5	3'9"	
P2	12	#7	32'3"	
S2	120	#4	7'2"	
U1	8	#5	6'9"	
V	58	#4	2'9"	
V2	120	#4	7'4"	

ONE ABUTMENT
BILL OF MATERIAL

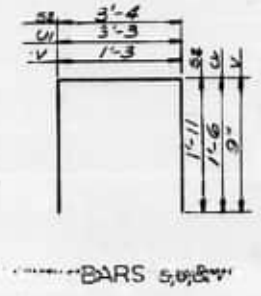
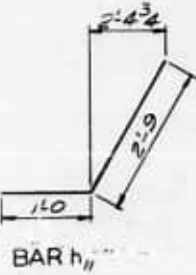
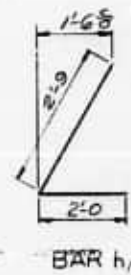
Item	Unit	Quan
Class X Concrete	Cu Yds	50.5
Reinforcement Bars	Lbs	3880
Rock Excavation	Cu Yds	18

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.



Note: All footings to be founded on Rock. Maximum Bearing Pressure = 3.5 Tons/sq'

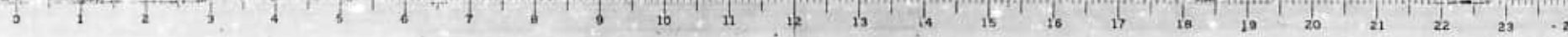
DESIGNED	RHN
CHECKED	AME
CHECKED	AME
CHECKED	JTL



ABUTMENT NO. 3
FAI 80 OVER RAMP AD

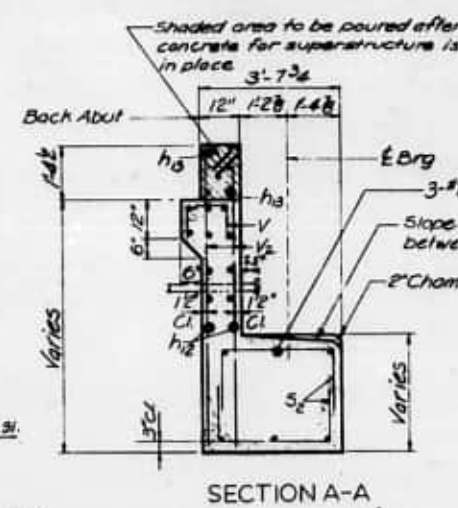
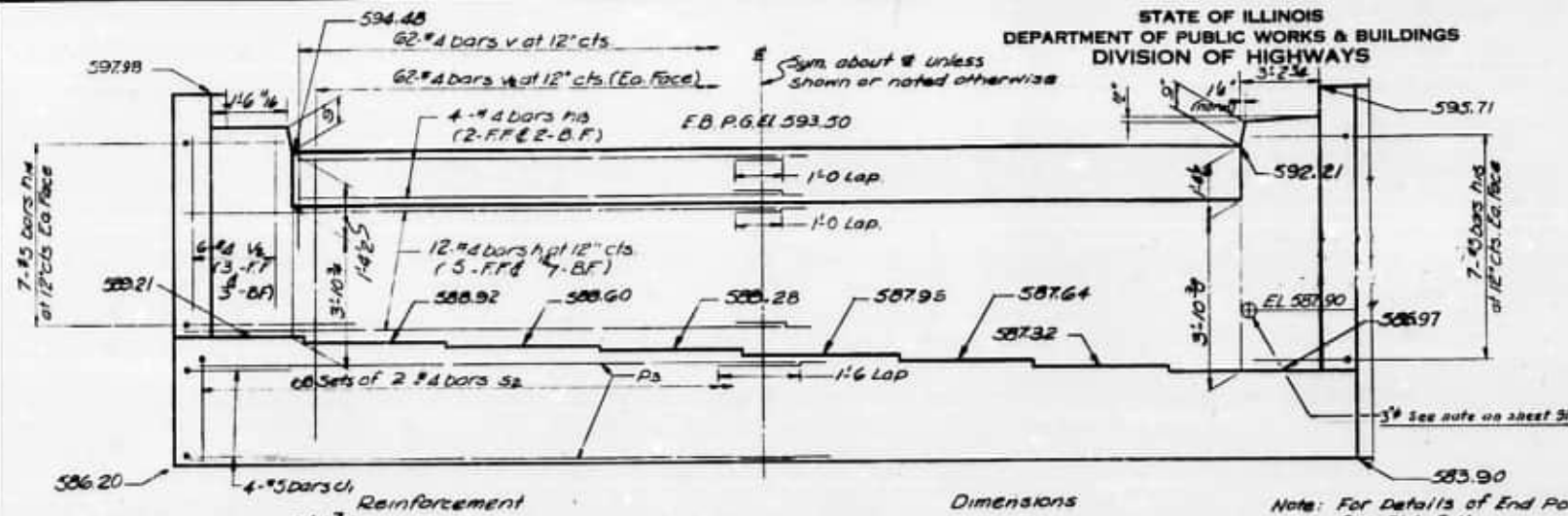
STA 368+45.70
FAI ROUTE 80
SECTION 99-3
(Sta. 368)
Scale NO SCALE
PROJECT
WILL COUNTY
Date Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

11-16-64 JTL Rev. Class X Con. from 50.3 to 50.5 cu yds.



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

DATE	BY	CHKD	APPD	SHEET NO.	TOTAL SHEETS
11/10/64	J.M.J.	AME	AME	10	12



ONE ABUTMENT
BILL OF REINFORCEMENT

Bar	No	Size	Lgth	Shape
n12	24	#4	31'-3"	
n13	8	#4	3'-5"	
n14	14	#3	3'-9"	
n15	14	#3	4'-9"	
P3	12	#7	34'-6"	
S2	136	#4	7'-2"	
U1	8	#3	6'-3"	
V	62	#4	2'-9"	
V2	136	#4	7'-10"	

ONE ABUTMENT
BILL OF MATERIAL

Item	Unit	Quan
Class X Concrete	Cu Yds	64.8
Reinforcement Bars	Lbs	4540

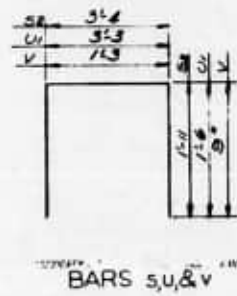
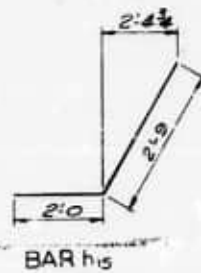
Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.

Note: All footings to be founded on Rock.
Maximum Bearing Pressure = 3.5 Tons/sq

ABUTMENT NO. 4
FAI 80 OVER RAMP AD

STA 368+45.70
FAI ROUTE 80
SECTION 99-3
Scale: NO SCALE
PROJECT
WILL COUNTY
Date: Nov. 30, 1964
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRISTAL LAKE, ILL.

DESIGNED	RHW
CHECKED	AME
CHASER	AME
CHECKED	JTL

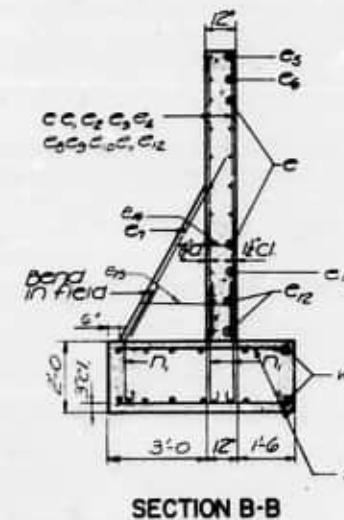
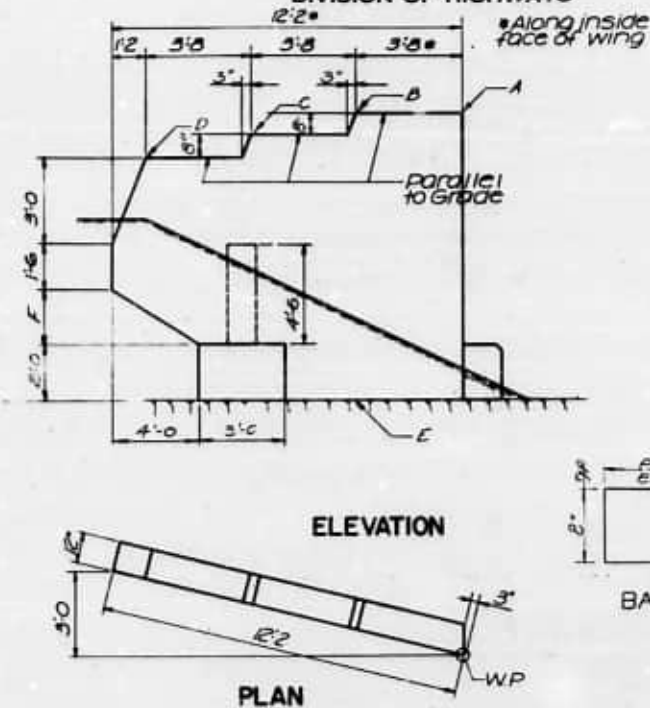
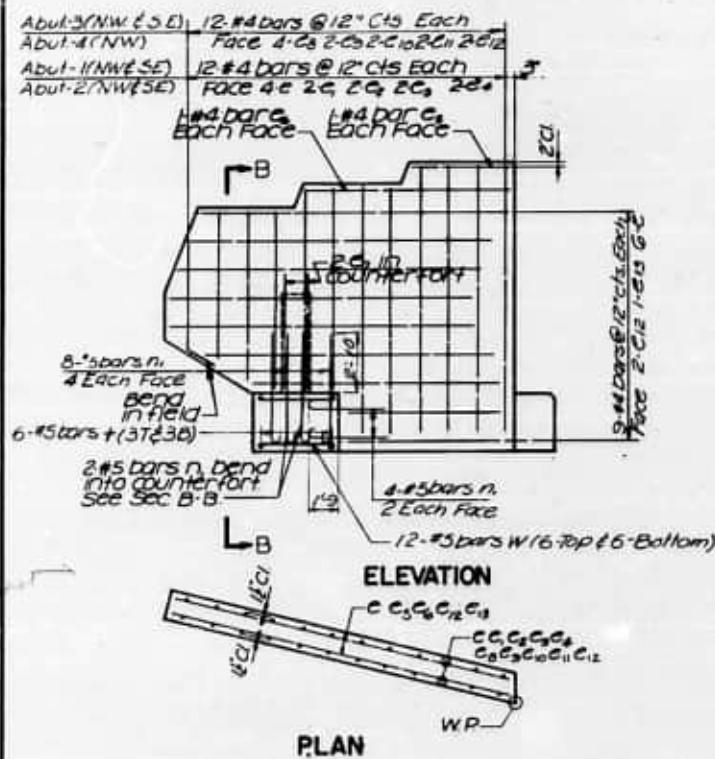


11-16-G4 J.M.J. Rev. Class X Con. from G4.4 to G4.8 ccy/sk

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

DATE	BY	CHKD	APPD	SHEET NO.
11/17/61	WLA	117	96	11

12 SHEETS



*7-END POSTS
BILL OF MATERIAL

Bar	No	Size	Length	Shape
C	116	#4	10'-6"	
C	116	#4	8'-10"	
C	116	#4	7'-10"	
C	116	#4	6'-10"	
C	116	#4	5'-7"	
C	116	#4	3'-6"	
C	116	#4	7'-0"	
C	116	#4	6'-0"	
C	24	#4	11'-2"	
C	12	#4	10'-5"	
C	12	#4	8'-5"	
C	12	#4	7'-3"	
C	40	#4	5'-6"	
C	14	#4	8'-6"	
R	7	#4	3'-6"	
R	7	#4	5'-2"	
R	98	#5	5'-2"	
T	42	#5	5'-0"	
W	84	#5	2'-6"	

*Bill of Material is for End Posts of Abutments No. 1, 2, 3 & NW End Post of Abut. No. 4.

Abut.	End Post	Elevations	A	B	C	D	E	F
1	NW	603.01	603.12	602.56	602.00	591.80	591.80	591.80
1	SE	601.49	601.60	601.04	600.48	590.30	590.30	590.30
2	NW	600.39	600.28	599.51	598.71	589.20	589.20	589.20
2	SE	598.80	598.69	597.91	597.14	587.60	587.60	587.60
3	NW	601.36	601.46	600.50	600.34	589.60	589.60	589.60
3	SE	599.27	599.38	598.82	598.26	587.40	587.40	587.40
4	NW	597.98	597.88	597.10	596.33	586.20	586.20	586.20

END POSTS - ABUTS. NO. 1, 2, 3 & N.W. END POST - ABUT. NO. 4

Note: All footings to be founded on rock.
Maximum Bearing Pressure = 1.5 Tons/sq'

Bar	No	Size	Length	Shape
n	4	#7	7'	
n	3	#4	7'	
w	5	#5	7'	

BARS n, n₂, w, *7-END POSTS
BILL OF MATERIAL

Class X Concrete in Cu Yds	Abutment	1	2	3	4 N Wall
10.2	Abutment 1	9.7	10.7	5.4	
840	Abutment 2	840	850	430	
850	Abutment 3	850	430		
430	Abut 4 N Wall	430			

Bar	No	Size	Length	Shape
n	2	#4	10'-6"	
n	2	#4	5'-6"	
n	2	#4	7'-0"	
n	3	#5	8'-7"	
n	3	#5	8'-10"	
n	3	#5	8'-1"	
n	3	#5	6'-7"	
n	3	#5	5'-7"	
n	3	#5	4'-10"	
n	2	#4	9'-7"	
n	2	#4	8'-10"	
n	2	#4	8'-1"	
n	3	#4	6'-7"	
n	3	#4	5'-7"	
n	3	#4	4'-10"	
n	2	#4	2'-6"	
n	2	#4	15'-6"	
n	2	#4	21'-0"	

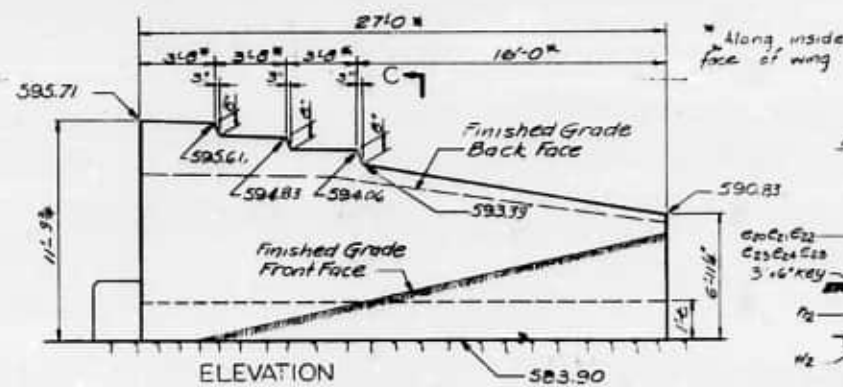
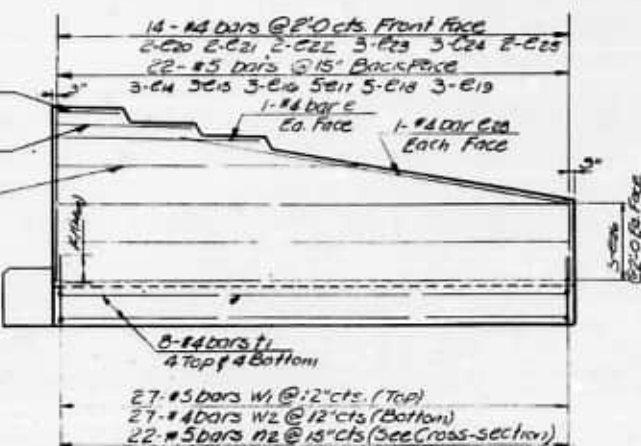
*Bill of Material is for SE End Post Abut. 4
Reinf. quantities included with Abutments

ABUTMENT DETAILS

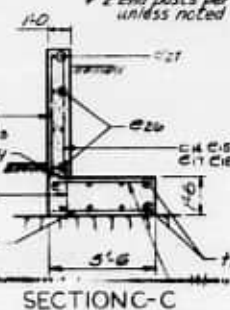
FAI 80 OVER RAMP AD

FAI 80 STA 368+45.70
PROJECT
SECTION 99-3 (STR-#2) WILL COUNTY
Scale: NO. 50-A-1-6 Date: Nov. 30, 1961
BLUMVET ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

DESIGNED	AME
CHECKED	RHW
DRAWN	AME
CHECKED	JTL



S.E. END POST - ABUT. NO. 4



11-16-64 J.T.J. Rev. end post elev. (dim. increased class X conc. *End post only - 1' x 1' x 1' and class X conc. 2' x 2' end post from 16" to 18" wide)



Bench Mark No. 468: Top of "O" in "Open"
Top Fire Hydrant N.E. Corner Hunter St.
and Jasper Street. El. 599.659

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

DATE	BY	CHKD	APPD	REV	SHEET NO.
11-10-62	J.T.L.	J.T.L.	J.T.L.	1	1
11-10-62	J.T.L.	J.T.L.	J.T.L.	2	2

SHEET NO. 1
OF SHEETS

GENERAL NOTES

STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS FOR
STRUCTURAL STEEL, A.S.T.M. DESIGNATION A36

RIVETS SHALL BE 3/4" # WITH 1 1/16" # OPEN HOLES UNLESS NOTED.
CLASS X CONCRETE SHALL BE USED THROUGHOUT. COARSE AGGREGATE
USED IN PARAPETS AND END FORTH SHALL BE FREE OF CURT, FLINT,
LIMONITE, LIMONITE AND SOFT SANDSTONE.

THE CONCRETE FLOOR SLAB SHALL BE FINISHED IN ACCORDANCE WITH
ARTICLE 51.19 OF THE STANDARD SPECIFICATIONS.

ALL WELDING SHALL COMPLY WITH THE REQUIREMENTS OF THE STANDARD
SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, OF THE
AMERICAN WELDING SOCIETY.

ALL ROCKERS, BOLTERS, BEARING PLATES, LEAD PLATES, FIVELERS,
AND ANCHOR BOLTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH
ARTICLE 51.15 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN
QUANTITY OF STRUCTURAL STEEL.

ANCHOR BOLTS SHALL BE SET BEFORE CONNECTING DIAPHRAGMS OVER
SUPPORT. SPACE REINFORCING TO MISS ANCHOR BOLTS.

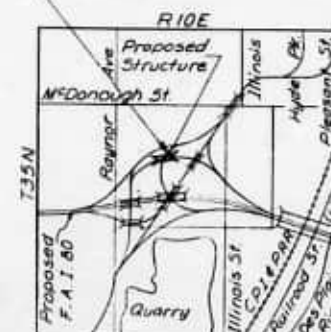
EXPANSION GUARDS AND PLATES SHALL BE FABRICATED AND ERECTED
IN ACCORDANCE WITH ARTICLE 51.13 (4) OF THE STANDARD SPECIFICATIONS
AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL.

EXCEPT AS OTHERWISE PROVIDED, ALL STRUCTURAL STEEL SHALL
RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF
ALUMINUM PAINT. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE
STANDARD SPECIFICATIONS.

ALL SURFACES OF EXPANSION GUARDS INACCESSIBLE AFTER ERECTION
SHALL BE GIVEN TWO SHOP COATS OF RED LEAD PAINT. THE 1/4" # WELDED
STUDS SHALL NOT BE PAINTED.

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

Note: This route has been selected as a 15'0" vertical clearance route.



LOCATION PLAN

Note: Excavation for portions of structure
in the embankments shall not be
classified.

GENERAL PLAN & ELEVATION
RAMP DB OVER RAMP AD

RAMP DB STA. 29+73.44
F.A.I. ROUTE 80 PROJECT I-80-4(22)33
SECTION 99-3HB-3 WILL COUNTY
Scale: No Scale Date: Nov 30, 1961

CONSULTING ENGINEERS

NEW YORK, N.Y. - UNIVERSAL LAKE, ILL.

STATION 29+73.44
BUILT 196 BY
STATE OF ILLINOIS
F.A.I. RT. 80 SEC. 99-3HB-3
F.A. PROJ. I-80-4(22)
LOADING HS-20

See Standard 2113-1

LETTERING FOR NAME PLATE

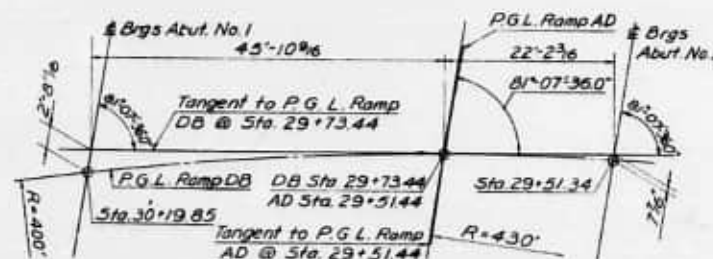
DESIGN STRESSES

Reinforced Concrete:

$f_c = 3,000$ p.s.i.
 $f_s = 20,000$ p.s.i.
 $n = 10$
 $f_c = 1,400$ p.s.i. (Except Footings)
 $f_c = 1,000$ p.s.i. (Footings)
 $v_c = 90$ p.s.i. (Except Footings)
 $v_c = 75$ p.s.i. (Footings)

Structural Steel:

$f_s = 20,000$ p.s.i.
Maximum Bearing Pressure = 4 Tons/S.F.
Loading: HS 20-44



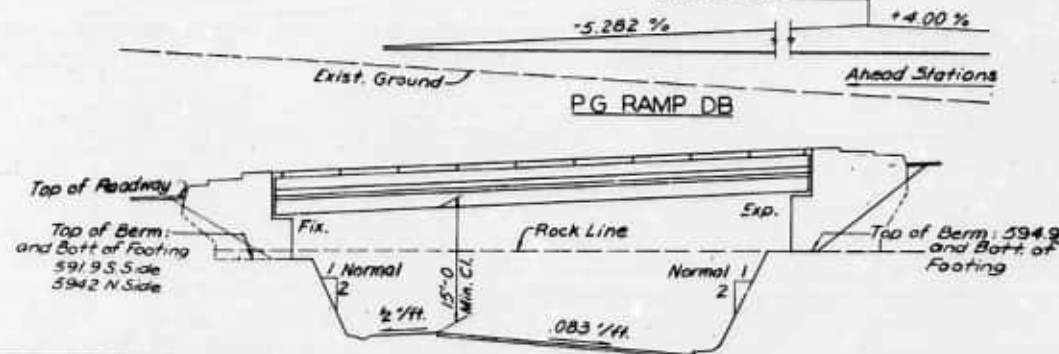
ABUTMENT LAYOUT

TOTAL BILL OF MATERIALS
Sec 99-3 (Str.3)

Item	Unit	Super	Sub	Total
Class X Concrete	Cu Yd	662	57.5	1237
Furnishing + Erecting Structural Steel	Lb	63900		63900
Reinforcement Bars	Lb	14,310	4300	18,610
Name Plates	Each	1		1
Aluminum Handrail	Lin Ft	140		140
Rock Excavation	Cu Yd		6	6
Bridge Seat Sealant	L.S.		6.1	6.1
Protective Coat	Sq Yd	253		253

P.V.I. Sta. 28+90.93
El. 606.54
V.C. = 200'
M.O. = 2.32'

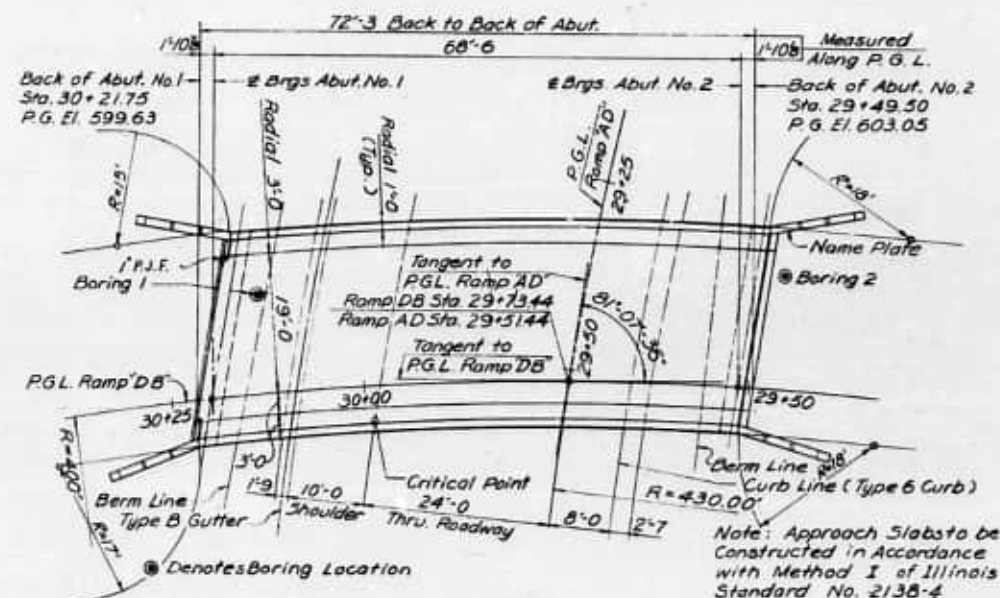
PG RAMP DB



ELEVATION

P.V.I. Sta. 30+72.73
El. 573.01
V.C. = 200'
M.O. = 1.52

PG RAMP AD



PLAN

Note: Approach Slab to be
constructed in accordance
with Method I of Illinois
Standard No. 2138-4

DESIGNED	R.D.L.
CHECKED	J.T.L.
DRAWN	J.T.L.
CHECKED	J.T.L.

Prepared and Recommended by

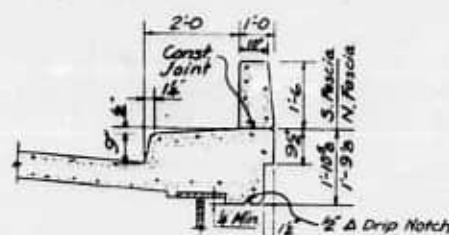
Blouett Engineering Co.

Russ H. Wengert Structural Engineer #81-2271

11-1764-111.1 Rev. C1233 A Comp. from 1233 to 1237 C1 100
P.S. Data from 16140 to 16146 added Bridge seat sealant L.S.1

Rev. 12-19-62 Prof. Cost = 253 Sq Yd 87M
Rev. 2-16-63 Change Sec 99-3 A Sec 99-3 HB-3 103

SHEET NO.	SECTION	PROPERTY	DATE	PRICE
11-1	99-1	WILL	197	05
SHEET NO. 11-1				
11 SHEETS				

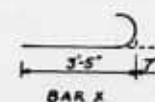


After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on DL Deflection Diagram. From these elevations subtract the increment of deflections for these points determined from the D. L. Deflection Diagram. The elevations so obtained subtracted from the theoretical grade elevations minus floor thickness equals fillet heights above top of beams.

SECTION A-A

¹ Place 2-#53 bars on inside face (road side)
at each rail post

BARS s & d.



BAR X

Bar	No.	Size	length	Shape
01	123	"5	28'-0	—
02	162	"5	27'-7	—
03	94	"5	35'-6	—
04	16	"5	12'-0	—
05	24	"5	11'-9	—
06	24	"6	35'-6	—
07	96	"6	3'-8	—
08	324	"5	2'-0	—
09	44	"5	4'-0	—

Class X Concrete	Cu Yds	66.2
Reinforcement Bars	Lbs	19,310
Structural Steel	Lbs	63,902

* Structural Steel includes weight of
rockers, bolsters, bearing plates,
lead plates, pintles, and anchor
bolts.
Estimated Wt. = 2520

Sign	1	2	3	4	5	6	7	8
A	601.07	602.12	602.59	603.09	603.56	604.01	604.44	604.78
B	601.11	601.57	602.02	602.52	603.03	603.49	603.92	604.27
C	600.55	601.01	601.50	602.01	602.50	602.96	603.40	603.75
D	599.99	600.46	600.94	601.46	601.96	602.44	602.90	603.24
E	599.43	599.90	600.37	600.87	601.33	601.81	602.26	602.70

Sign	1	2	3	4	5	6	7	8
A	601.07	602.12	602.59	603.09	603.56	604.01	604.44	604.78
B	601.11	601.57	602.02	602.52	603.03	603.49	603.92	604.27
C	600.55	601.01	601.50	602.01	602.50	602.96	603.40	603.75
D	599.99	600.46	600.94	601.46	601.96	602.44	602.90	603.24
E	599.43	599.90	600.37	600.87	601.33	601.81	602.26	602.70

**Where curb is over stringer, Elevation shown is that of the 1 projection but not of slab along its cross edge " " " "

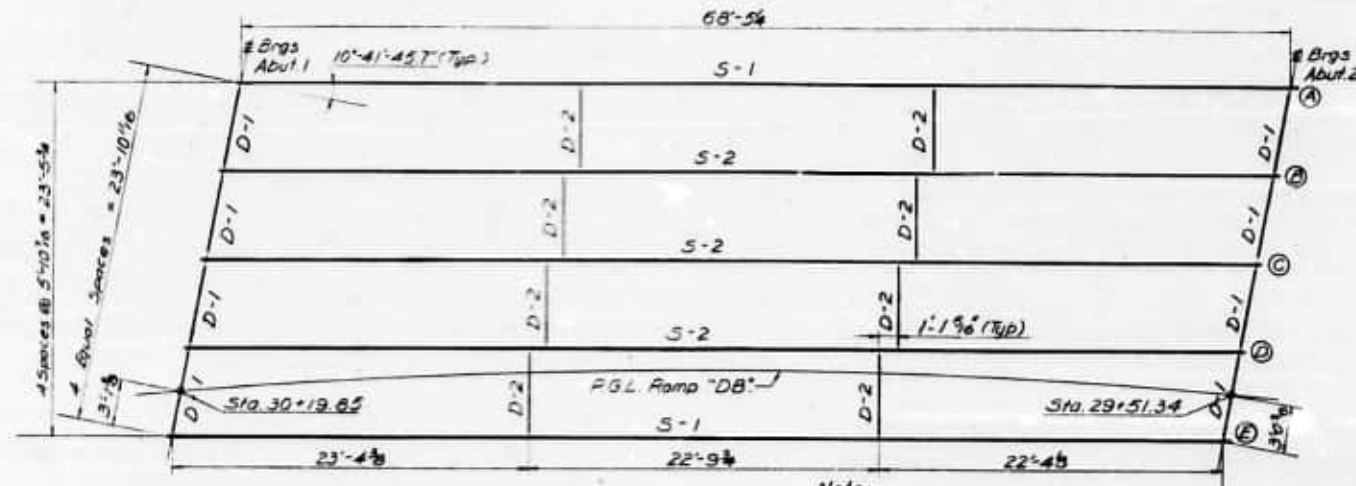
RAMP DB STA. 29+73.44
F A I ROUTE 80 PROJECT
SECTION 98-3 WILL COUNTY
SCALE Date: APR 30 1964

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. Y. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

1917-64 J.M.J. Rev. Class A Conc. from 66.7 to 66.7 cm yds, Rel. bars from 13060 to 14,300 lbs.

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

DATE	REVISION	BY	CHKD	APP'D	SHEET NO.
11/1/77	1	WLL	1/77	77	3
11/1/77	2	WLL	1/77	77	3

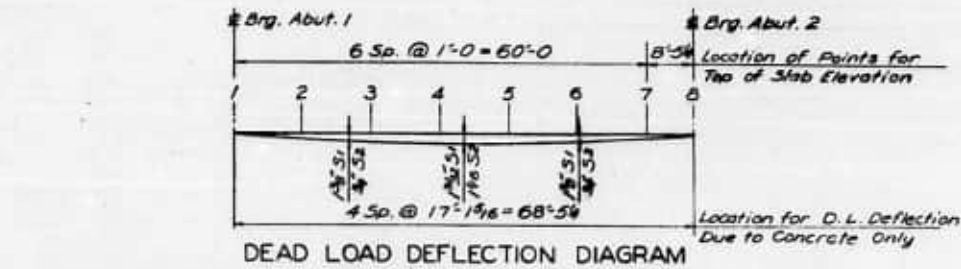


FRAMING PLAN

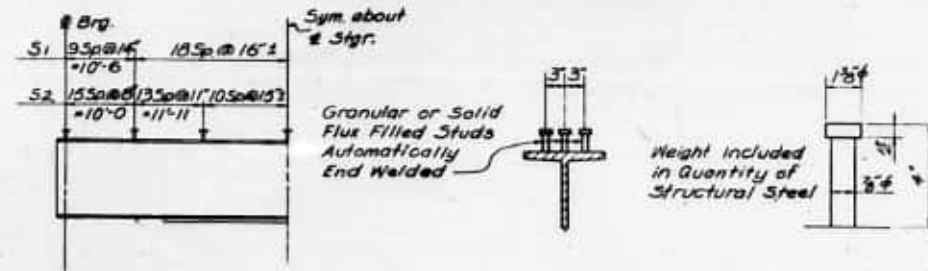
Note:
All Stg's 33WF130
All Dimensions Measured in a Horizontal Plane

NOTES

1" Anchor bolts to be grouted into drilled holes after beams are in place, or bolts at fixed abut. may be built into the masonry.
**D-1/100 ft. of exp. for every 15° below the normal temp. of 50°F.
**D-2/100 ft. of exp. for every 15° above the normal temp. of 50°F.

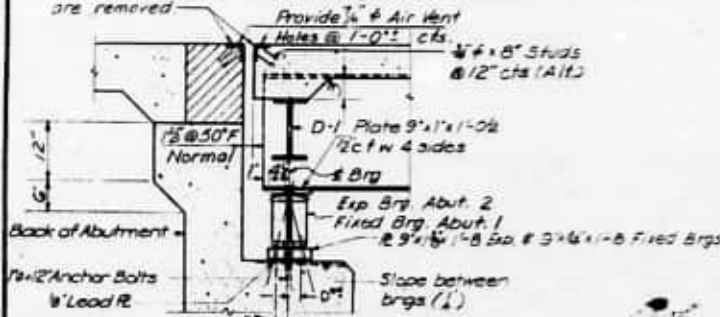


DEAD LOAD DEFLECTION DIAGRAM



SHEAR CONNECTOR SPACING

SHEAR CONNECTOR DETAILS



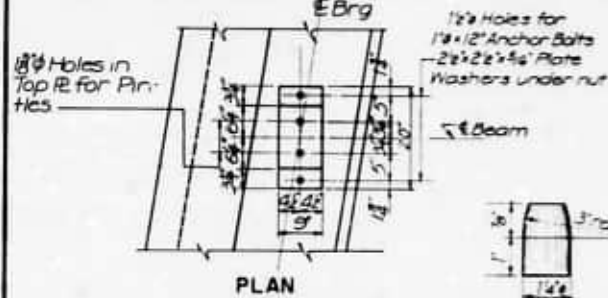
SECTION AT ABUTMENTS

Abut. 2 Shown.
Abut. 1 similar but use fixed bearing. See Joint Details this sheet.

FIXED JOINT DETAILS
At Abut. 1

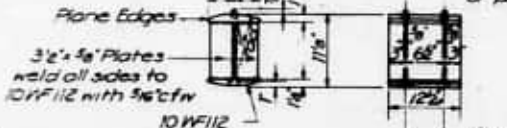


ANGLE GUARD DETAILS

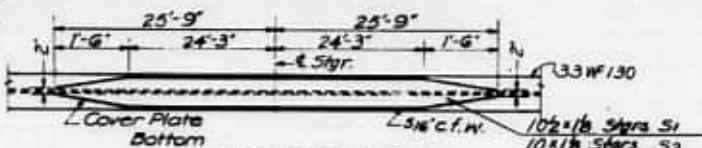


PLAN

DETAIL OF PINTLE



DETAIL OF BEARING
AT ABUT. 2



DETAIL OF COVER PLATES



DETAIL OF BEARING
AT ABUT. 1

TOP OF BEAM
ELEVATION

Stg.	Pt.	At Abut. 1	At Abut. 2
A		601.04	604.15
B		600.48	603.64
C		599.92	603.12
D		599.36	602.61
E		598.80	602.10

These elevations are at top of top flange of stringers exclusive of deflections

Note: For top of slab elevations see sh. # 2
Cost of Hot Poured Seal, Premoulded Joint Filler and Water Stop Shall be incidental to the Contract.

FRAMING PLAN & STEEL DETAILS
RAMP DB OVER RAMP AD

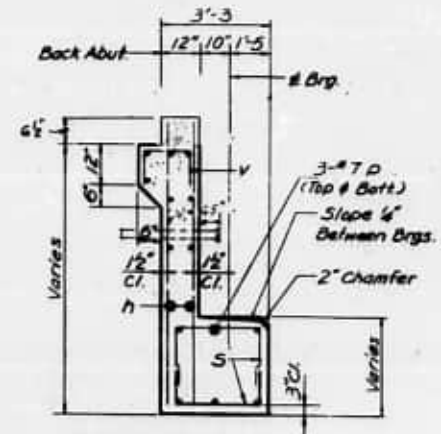
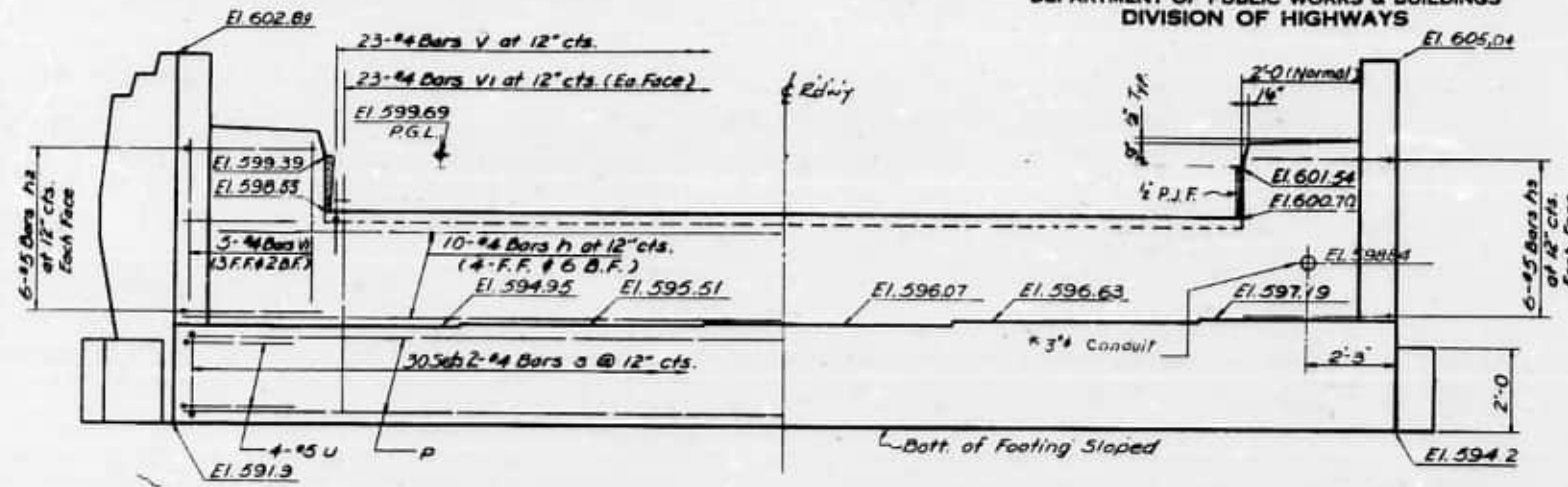
RAMP DB STA. 29+73.44
F&I ROUTE 80
SECTION (STR. 3)
NO. 504

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

DESIGNED	J. P. H.
CHECKED	L. D.
DRAWN	J. P. H.
CHECKED	G. F.

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

11-17-64 J.M.J. Rev. class & conc. from 25.4 to 26.1, Rein bars from 2150 to 2050 lbs
2050 lbs



BILL OF REINFORCEMENT

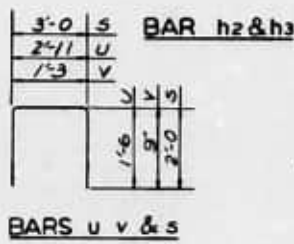
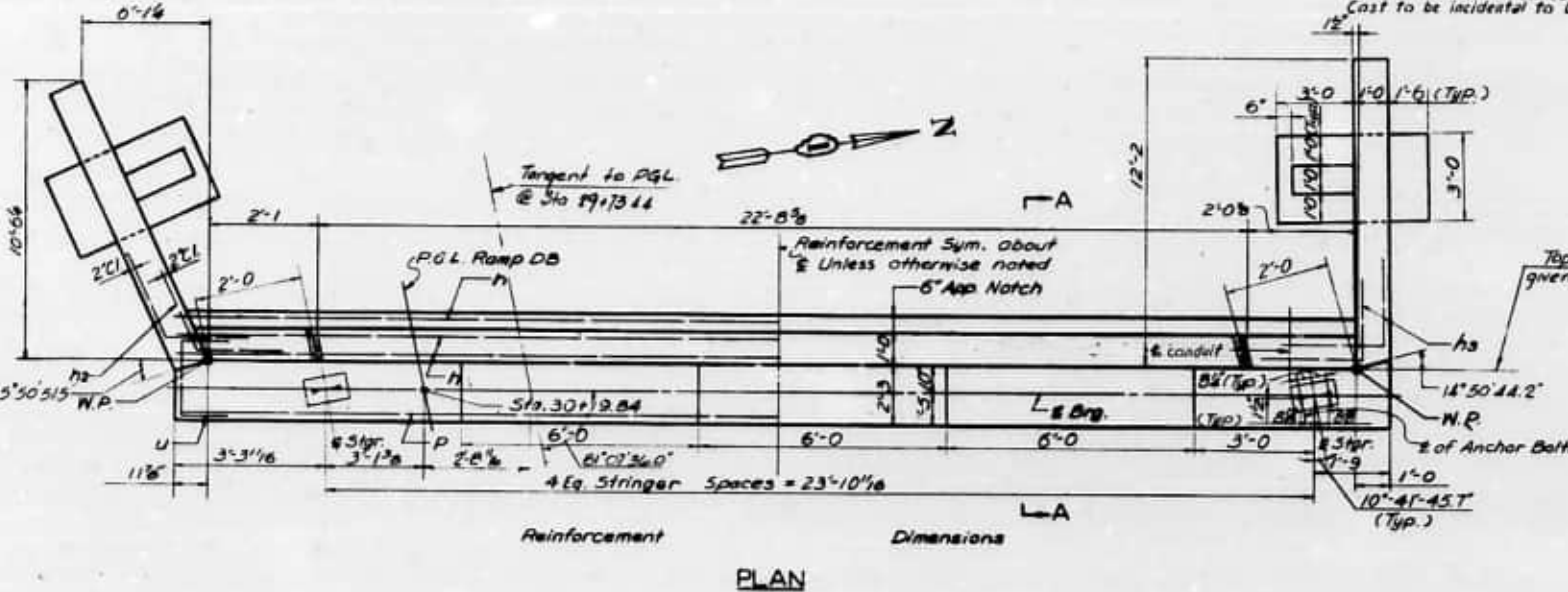
Bar	No.	Size	Length	Shape
h	10	#4	28'-7"	—
h2	12	#5	5'-0"	—
h3	12	#5	5'-0"	—
s	60	#4	7'-0"	□
v	23	#4	2'-9"	□
vi	36	#4	6'-0"	—
p	6	#7	28'-7"	—
u	8	#5	5'-11"	□

BILL OF MATERIAL

Item	Unit	Quan
Class X Concrete	Cu Yds	26.1
Reinforcement Bars	Lbs	2050
Rock Excavation	Cu Yds	5

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.

Note: For End Post Details See Sht. # 7
Footings shall be founded on sound rock.



DESIGNED	J. P. W.
CHECKED	G. F.
PLANNED	J. P. W.
CHECKED	G. F.

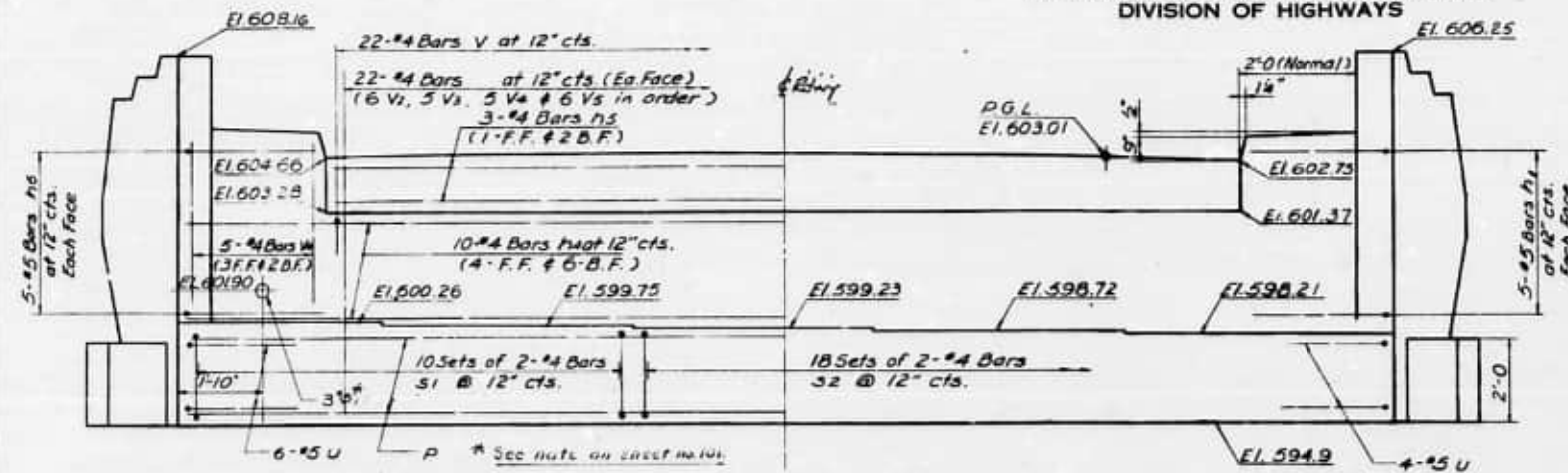
ABUTMENT NO. 1
RAMP DB OVER RAMP AD
RAMP DB STA 29+73.44
FAI ROUTE 80
SECTION 39-3
(57'-3")
Scale: NO SCALE
PROJECT
WILL COUNTY
Date: Nov 30, 1964
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.



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

DATE	BY	CHKD	APPD	REV	SHEET NO.
11-17-64	J.M.J.	G.F.			6
11-17-64	J.M.J.	G.F.			6

SHEET NO. 6
OF 6 SHEETS

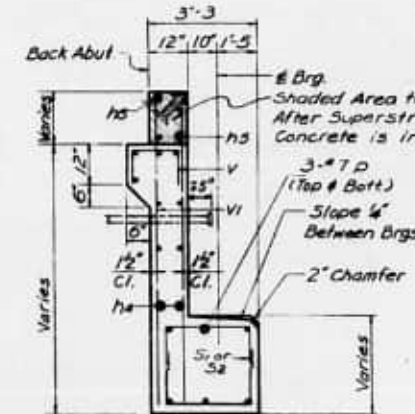


Reinforcement

ELEVATION

Dimensions

Note: Abut. to be founded on rock



SECTION A-A

BILL OF REINFORCEMENT

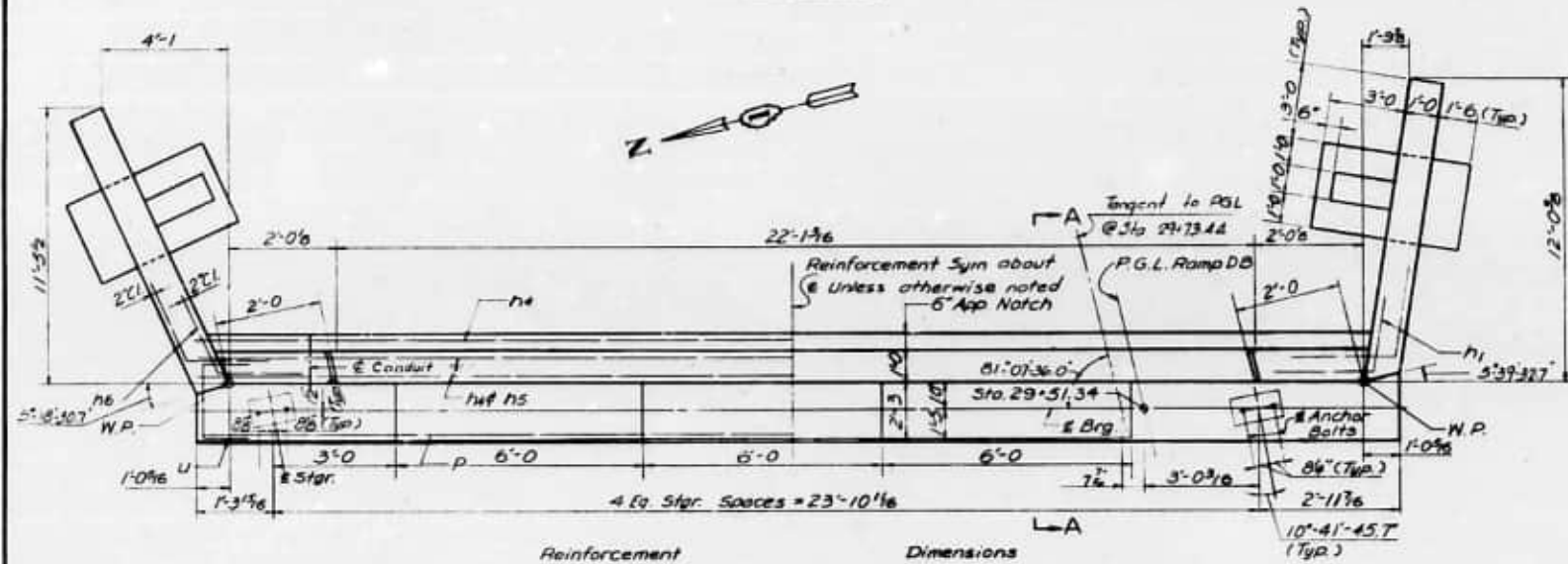
Bar	No.	Size	Length	Shape
h ₈	10	#4	27'-8"	
h ₅	4	#4	21'-8"	
h ₆	10	#5	5'-0"	
h ₁	10	#5	5'-0"	
P ₁	6	#7	27'-8"	
S ₁	20	#4	9'-2"	
S ₂	36	#4	8'-2"	
U	10	#5	5'-11"	
V ₂	12	#4	9'-0"	
V ₃	10	#4	8'-6"	
V ₄	10	#4	8'-0"	
V ₅	12	#4	7'-6"	
V	22	#4	2'-9"	

BILL OF MATERIAL

Item	Unit	Quan
Class X Concrete	Cu Yds	36.4
Reinforcement Bars	Lbs	2260
Rock Excavation	Cu Yds	1

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.

Note: For End Post Details see Sht. #7
Footings shall be founded on sound rock.



Reinforcement

PLAN

Dimensions

BAR h₈ & h₁

h ₈	3'-0"
h ₁	3'-0"
U	2'-11"
V	1'-3"

BAR S₁, S₂, U & V

DESIGNED	J. F. H.
CHECKED	G. F.
DRAWN	J. F. H.
CHECKED	G. F.

ABUTMENT NO. 2
RAMP DB OVER RAMP AD
RAMP DB STA. 29+73.44

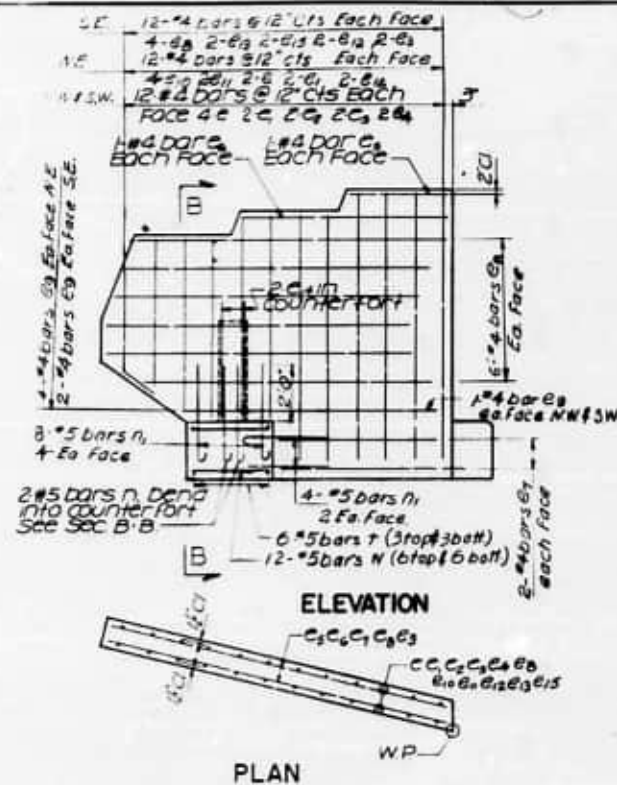
FAI ROUTE 80
SECTION 89-3
(Sta. 3)

PROJECT
WILL COUNTY
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK N. Y. CRYSTAL LAKE, ILL.

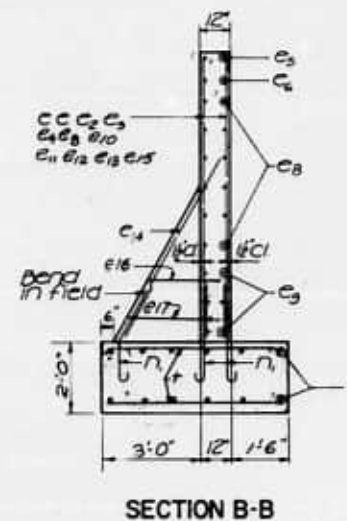
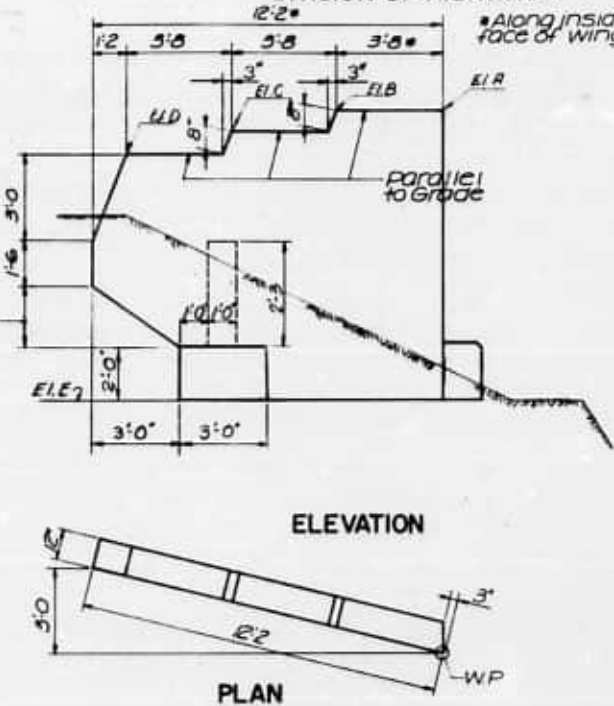
11-17-64 J.M.J. Rev. Class X conc. from 31.2 to 31.4 cu yds.

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

DATE	BY	PROJECT	POST	SHEET NO.
11/1/54	J. J. H.	WILL	111	103
11/1/54	J. J. H.	WILL	111	103



N.W. 2'-5 1/2"
S.W. 2'-7 1/2"
N.E. 5'-9"
S.E. 3'-10 1/2"



FOUR END POSTS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
C	20	#4	10'-0"	—
C1	12	#4	9'-3"	—
C2	8	#4	7'-3"	—
C3	12	#4	6'-3"	—
C4	8	#4	5'-0"	—
C5	8	#4	3'-4"	—
C6	8	#4	7'-0"	—
C7	16	#4	5'-6"	—
C8	56	#4	10'-8"	—
C9	16	#4	8'-10"	—
C10	8	#4	12'-6"	—
C11	4	#4	12'-0"	—
C12	8	#4	7'-6"	—
C13	4	#4	10'-3"	—
C14	8	#5	4'-3"	—
C15	4	#4	8'-3"	—
C16	4	#4	3'-6"	—
C17	4	#4	5'-8"	—
I	24	#5	5'-0"	—
n1	56	#5	4'-0"	—
W	48	#3	2'-6"	—

Reinforcement Bars	
* Abut. 1 (End Post)	Lbs 790
* Abut. 2 (End Post)	Lbs 900
Class 1 Concrete	
* Abut. 1 (End Post)	Cu Yds 10.2
* Abut. 2 (End Post)	Cu Yds 12.0

Notes: Reinf. includes Fig. Steel.
* included in quantity on sheet #5
* included in quantity on sheet #6

END POST ELEVATIONS

End Post Elev.	Abut. No. 1		Abut. No. 2	
	N.W.	S.W.	N.E.	S.E.
A	608.04	602.89	608.16	606.15
B	604.86	602.70	608.28	606.37
C	604.02	601.84	607.72	605.82
D	603.17	600.39	607.15	605.27
E	594.2	591.9	594.9	594.9

DESIGNED	G F
CHECKED	J. J. H.
DRAWN	SFF & G F
CHECKED	J. J. H.

ABUTMENT DETAILS
RAMP DB OVER RAMP AD
RAMP DB STA 29+73.44
F&I ROUTE 80 PROJECT
SECTION 99-3 (Str. 3) WILL COUNTY
Scale: NO SCALE Date: Jan. 30, 1961
DLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
MOOREHEAD, N. J. NEW YORK N. Y. CRYSTAL LAKE, ILL.

PV 1.5b 27+00.00
EI 390.18
VC = 200'
MO = 0.09'
+0.6300

DESIGN STRESSES
Reinforced Concrete:
 $f_t = 3,500 \text{ psi}$
 $f_s = 20,000 \text{ psi}$
 $n = 10$
 $f_c = 1400 \text{ psi (except footings)}$
 $f_c = 1000 \text{ psi (footings)}$
 $V_c = 90 \text{ psi (except footings)}$
 $V_c = 75 \text{ psi (footings)}$
Structural Steel:
 $f_s = 20,000 \text{ psi}$
Maximum Soil Pressure - 6'2 Tons/sr
Loading - HS 20-44

REPORT NO.	SECTION	SUBJECT	DATE ROUTED	BY NO.
FAIR ALL	1-0-2 4-3	WILL	197	106
FOR. MAIL (SEE NO. 2)		CLASSIFIED	PROJECT (U-1000)	

SHEET NO. _____
OF _____ SHEETS

GENERAL NOTES

STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS FOR
STRUCTURAL STEEL, A.S.T.M. DESIGNATION A36.

RIVETS SHALL BE 3/4" Ø WITH 13/16" Ø OPEN HOLES UNLESS NOTED

CLASS I CONCRETE SHALL BE USED THROUGHOUT. COARSE AGGREGATE USED IN PARAPETS AND END POSTS SHALL BE FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

THE CONCRETE FLOOR SLAB SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.19 OF THE STANDARD SPECIFICATIONS.

ALL WELDING SHALL COMPLY WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, OF THE AMERICAN WELDING SOCIETY.

ALL ROCKERS, BOLSTERS, BEARING PLATES, LEAD PLATES, PINTLES, AND ANCHOR BOLTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 51.15 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL.

ANCHOR BOLTS SHALL BE SET BEFORE CONNECTING DIAPHRAGMS OVER SUPPORT. SPACE REINFORCING TO MISS ANCHOR BOLTS.

EXPANSION GUARDS AND PLATES SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ARTICLE 51.13 (4) OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL.

EXCEPT AS OTHERWISE PROVIDED, ALL STRUCTURAL STEEL SHALL RECEIVE ONE THIN COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE STANDARD SPECIFICATIONS.

ALL SURFACES OF EXPANSION GUARDS INACCESSIBLE AFTER ERECTION SHALL BE GIVEN TWO COATINGS OF RED LEAD PAINT. THE 1/4" WELDED STUDS SHALL NOT BE PAINTED.

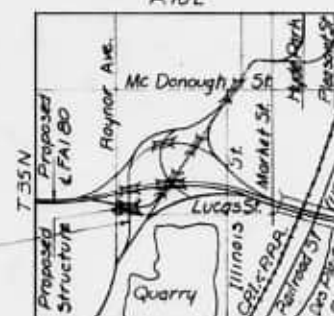
Excavation for portions of structure in the embankments shall not be classified.

NO ROCK LARGER THAN 3" SHALL BE PLACED IN FILLS IN THE AREA WHERE FILES ARE TO BE DRIVEN.

PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING THE CONCRETE FLOOR.



SECTION 8-B



LOCATION PLAN
Not to Scale

TOTAL BILL OF MATERIALS
Sec. 1-D-2 (Gr. #4)

Item	Unit	Super	Sub	Total
* Class A Excavation for Structures	Cu. Yd.	—	287	287
Back Excavation for Structures	Cu. Yd.	—	40	40
Class X Concrete	Sq. Yd.	1063	1233	229
Furnishing & Erecting Structural Steel	Lb	70670	—	70670
Reinforcement Bars	Lb	21,400	14,400	35,800
Fur. Cret. Piles up to 20'	Lin. Ft.	—	96	96
Driving Timber Piles	Lin. Ft.	—	46	46
Wave Plates	Each	1	—	1
Sloped wall 4'	Sq. Yd.	—	296	296
Aluminum Handrail	Lin. Ft.	239	—	239
Bridge Seat Sealant	L. Strips	—	57	57
Protective Coat	Sq. Yd.	430	—	430

* Include excl. for toe wall
** Applied at delivery

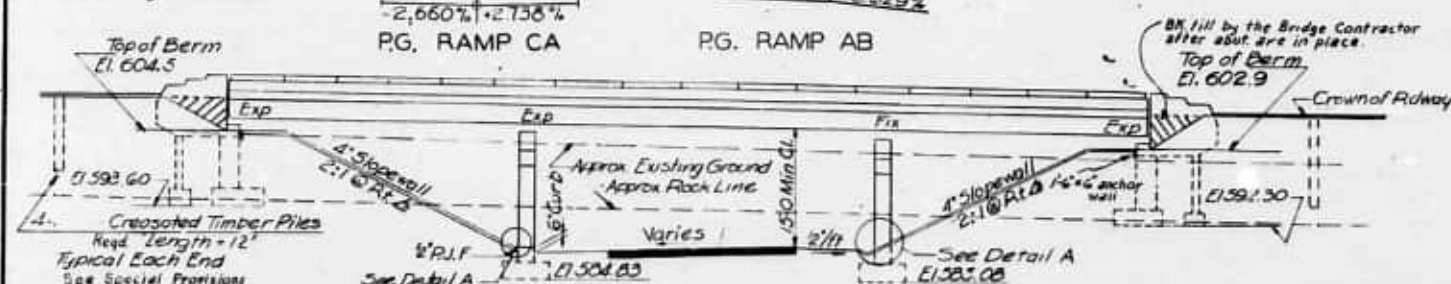
Prepared and Recommended by
Blauvelt Engineering Co.
Structural Engineer
R. H. Langford # 81-2251

GENERAL PLAN & ELEVATION
RAMP CA
OVER FA. ROUTE 8

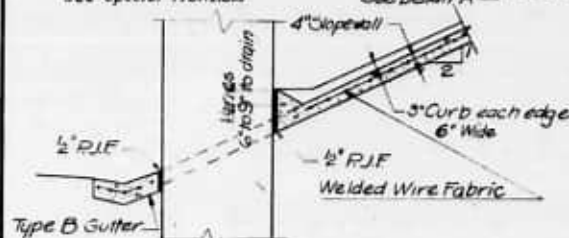
FA RTE. & STA 28+52.21
FA ROUTE 8 PROJECT U-10(9)
SECTION 1-D-2(STR. 4) WILL COUNTY
Scale NO SCALE Date Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

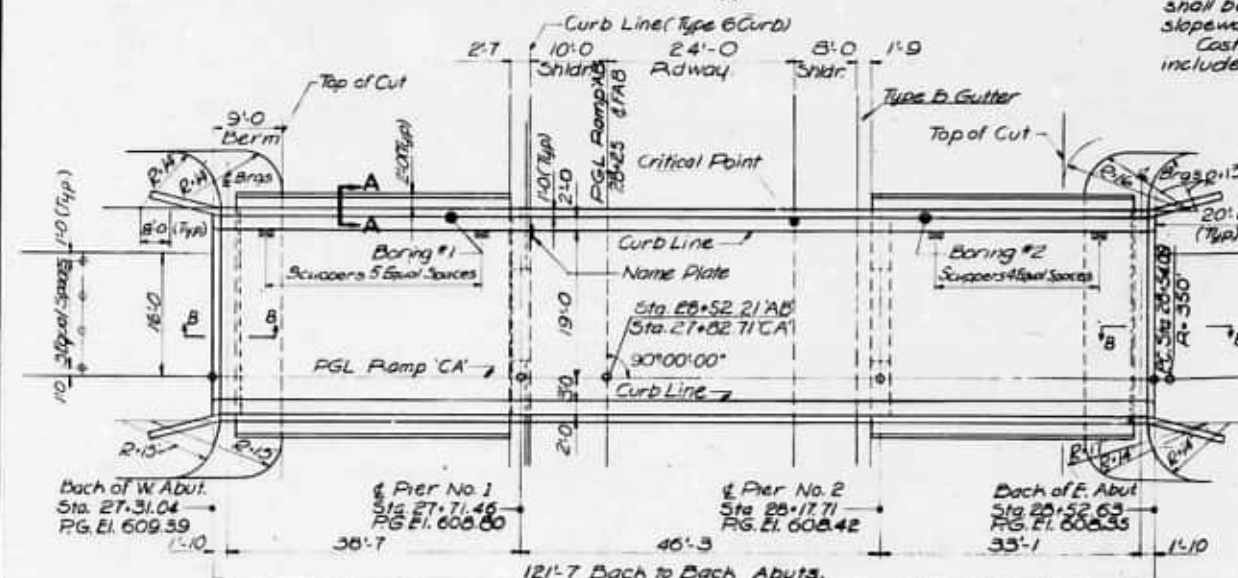
11-13-64 J.F.J. Rev. class n. con. from 2292 to 2296 yards, for. Re. 12-10-64 Prof. Cost = 430 gm. W. SFN
drilled further west from 11-20-64 11 ft. 51000 N.W. from 2272 to 2284 W.D. and added Miller stratigraphic log. Estimated quantity of Environment from 2272 to 2284 W.D.



ELEVATION



DETAIL A



PLAN

Note: Approach Slabs to be constructed in accordance with Method II of Illinois Standard No. 1909-6



SECTION A-A

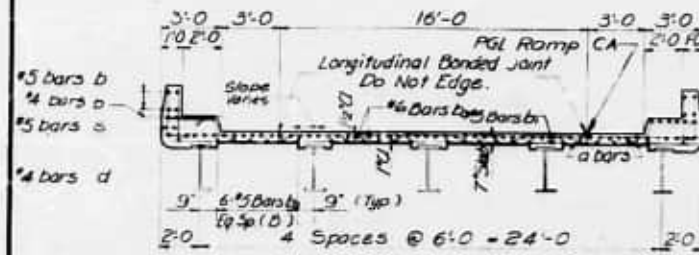
● Denotes Boring Locations

DESIGNED	UTL
CHECKED	LD & GF
DRAWN	AME
CHECKED	UTL

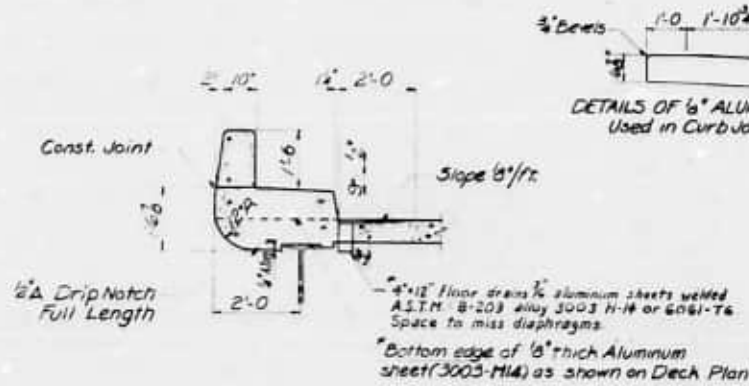


STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	BY	CHKD	APPD	REV	SHEET NO.
11/11/41	J.P.	W.L.	197	1	8
11/11/41	J.P.	W.L.	197	1	8

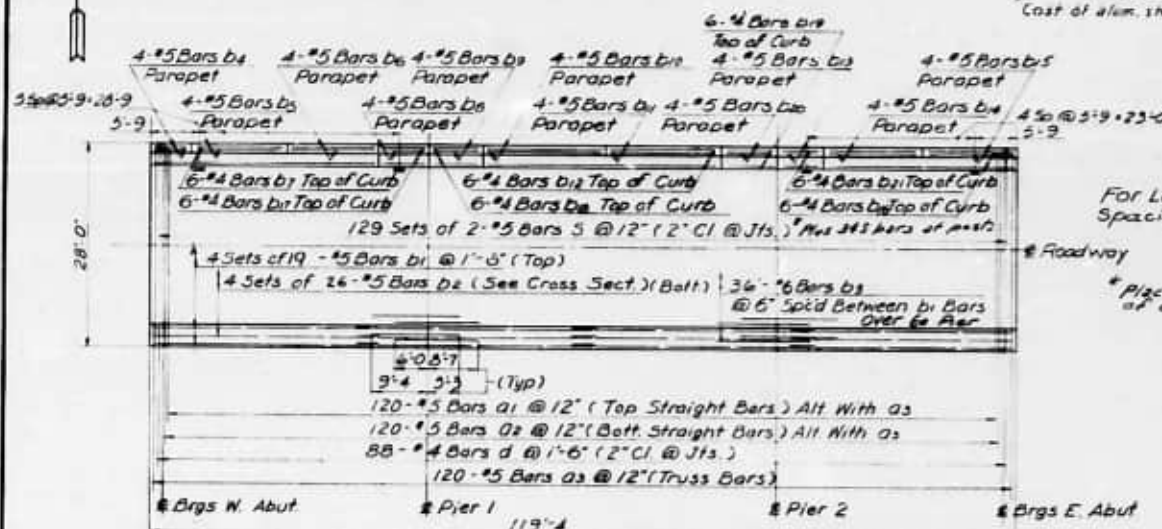


CROSS SECTION



CURB DETAILS

Cost of alum. sheets incidental to class X conc.



PLAN

Note: Bar reinforcement and its spacing symmetrical about roadway.

ELEVATION-TOP OF SLAB** (Elevations not adjusted for D.L. deflection)

Sta.	1	2	3	4	5	6	7	8	9	10	11	12	13
A	60915	60894	60872	60854	60838	60823	60807	60796	60783	60778	60768	60762	60753
B	60921	60901	60882	60865	60850	60837	60823	60812	60802	60797	60789	60784	60778
C	60928	60909	60891	60876	60863	60850	60839	60829	60820	60816	60810	60806	60803
D	60934	60917	60901	60887	60876	60864	60854	60846	60839	60836	60831	60829	60827
E	60941	60925	60911	60898	60888	60878	60870	60863	60858	60853	60852	60851	60852

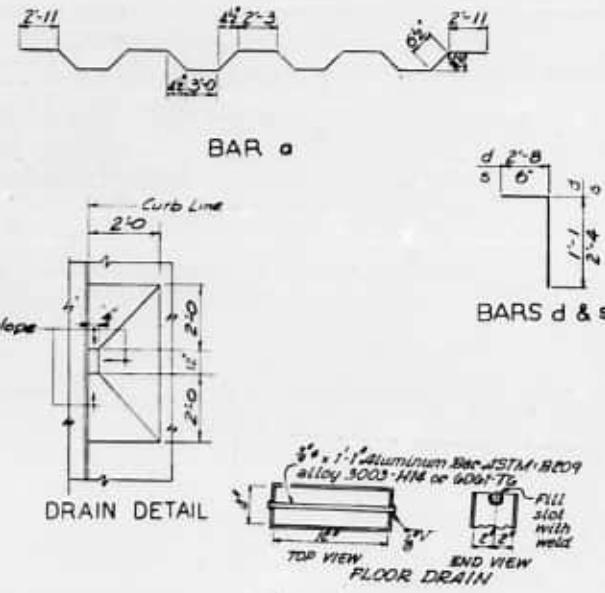
See Sheet No. 3 For Locations Of Points.

** Where curb is over stringer, elevation shown is that of the projection of top of slab along its cross slope.

DESIGNED	J.J.H.
CHECKED	L.D.
DRAWN	AME & J.J.H.
CHECKED	L.D.

After all structural steel has been erected elevations of the top flanges of the beams shall be taken at intervals shown on D.L. Deflection Diagram. From these elevations subtract the increment of deflections for these points determined from the D.L. Deflection Diagram. The elevations so obtained subtracted from the theoretical grade elevations minus floor thickness equals the fillet heights above tops of beams.

METHOD OF DETERMINING FILLET HEIGHT**



DRAIN DETAIL

* Structural steel includes weight of rockers, bolsters, bearing plates, lead plates, pintles and anchor bolts.
Estimated Weight = 4330 lbs.

Class	Weight	Cost
Class X Concrete	104.5	104.5
Reinforcement Bars	21.400	21.400
Structural Steel	70.670	70.670

BILL OF MATERIALS

Cost of furnishing and installing drains, aluminum sheets, waterstop, precast joint filler and joint sealing compound shall be incidental to the contract.

BILL OF REINFORCEMENT

Bar	No.	Size	Lgth	Shape
a1	120	#5	27'-7"	—
a2	120	#5	27'-3"	—
a3	120	#5	28'-11"	—
b1	76	#5	30'-9"	—
b2	104	#5	30'-7"	—
b3	72	#5	14'-7"	—
b4	8	#5	3'-6"	—
b5	8	#5	13'-10"	—
b6	8	#5	14'-0"	—
b7	12	#4	31'-11"	—
b8	8	#5	6'-0"	—
b9	8	#5	5'-11"	—
b10	8	#5	10'-9"	—
b11	8	#5	16'-6"	—
b12	12	#4	33'-8"	—
b13	8	#5	6'-2"	—
b14	8	#5	15'-4"	—
b15	8	#5	11'-4"	—
b16	12	#4	26'-11"	—
b17	12	#4	6'-8"	—
b18	12	#4	5'-11"	—
b19	12	#4	5'-8"	—
b20	8	#5	2'-0"	—
b21	12	#4	6'-2"	—
c	176	#4	3'-9"	—
d	584	#5	2'-10"	—

SLAB PLAN & CROSS SECTION

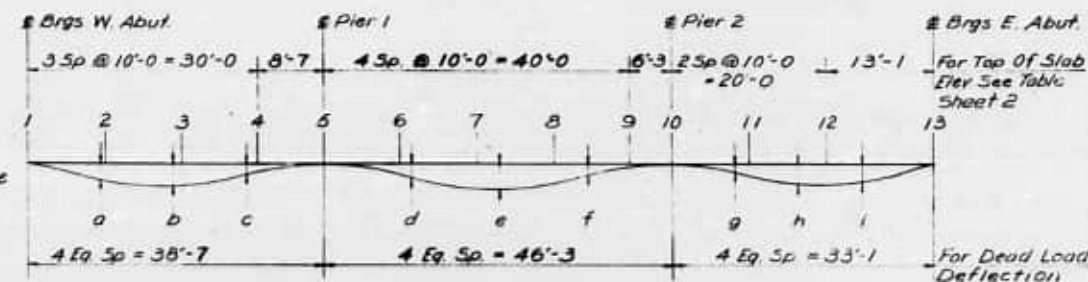
RAMP CA
OVER F.A.R.T.E. 8

F.A.R.T.E. 8 STA. 28+52.21

F.A. ROUTE 8
SECTION 1-D-2
Scale NO SCALE

PROJECT
WILL COUNTY
Date Nov. 30, 1941

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.



For Dead Load Deflection

Strg ^{pt}	a	b	c	d	e	f	g	h	i
A, E	1	2	16	3	3	16	16	5	6
B, C, D	2	3	3	16	3	3	12	3	3

AS AWARDED
TOP OF BEAM ELEVATIONS

Slng	1	3	4	10	13
A	608.52	607.73	607.67	607.15	606.91
B	608.58	607.87	607.75	607.34	607.11
C	608.63	608.00	607.88	607.53	607.41
D	608.71	608.13	608.02	607.73	607.61
E	608.73	608.23	608.10	607.92	607.81

Notes:
For top of slab elevations see Sht.*2

Size	#	5	8 Series
A		607.64	607.43
B		607.74	607.55
C		607.06	607.66
D		606.00	607.83
E		608.11	607.96

FRAMING PLAN & STEEL DETAILS
RAMP CA OVER F.A. RTE. 8

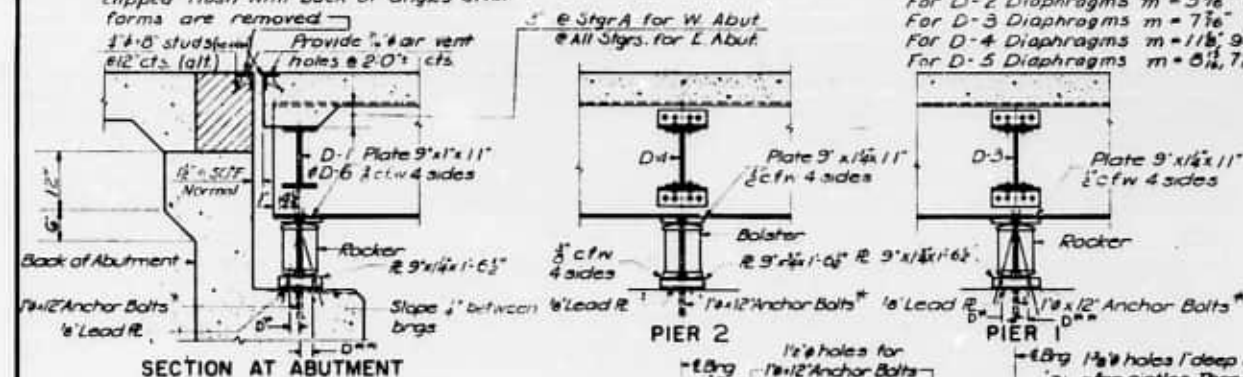
FA ROUTE 8
SECTION 10-2
31-4
Scale: NO SCALE

PROJECT
WILL COUNTY
Date Nov 30 1961

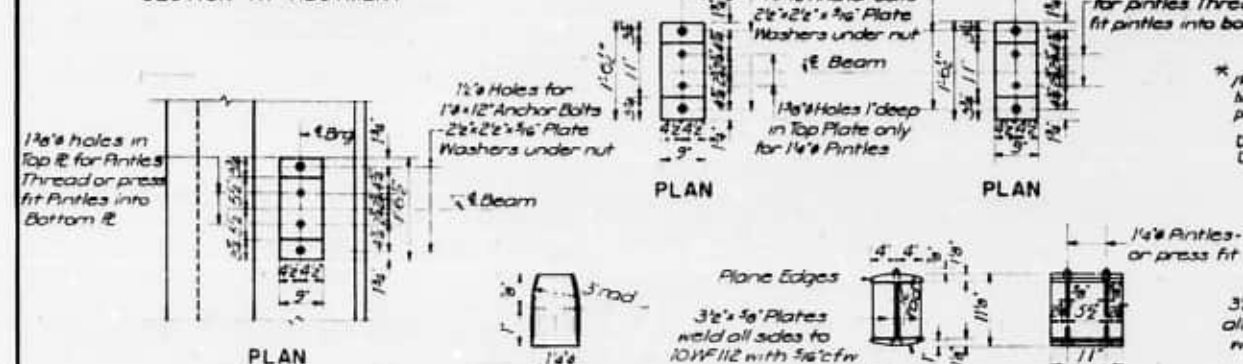
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY N.J. NEW YORK N.Y. CRYSTAL LAKE ILL.

NOTES:
 All Stg's Are 27'W94
 D-1 & D-6 Diaphragms Are 12'W40
 All Other Diaphragms Are 8'W28
 D-1, D-2 & D-3 Diaphragms Are Level Between Stg's A & E
 D-4 & D-5 Diaphragms Are Level Between Two Adjacent Stg's
 D-6 Diaphragms Are Banked To The Same Cross Slope As The Slob Above
 All m Dimensions Are At The Southern Face of Stg's
 For D-2 Diaphragms $m = 5\frac{1}{2}' @ A$ Stg.
 For D-3 Diaphragms $m = 7\frac{1}{2}' @ A$ Stg.
 For D-4 Diaphragms $m = 11\frac{1}{2}' @ 94^\circ, 7\frac{1}{2}' @ 52^\circ @ A, B, C \& D$ Stg's Respectively
 For D-5 Diaphragms $m = 8\frac{1}{2}', 7\frac{1}{2}', 6\frac{1}{2}' @ 52^\circ @ A, B, C \& D$ Stg's Respectively

5. @ Stgr A for W Abut
@ All Stors. for L Abut.

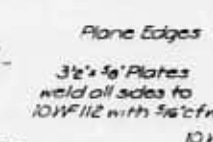


SECTION AT ABUTMENT



PLAN

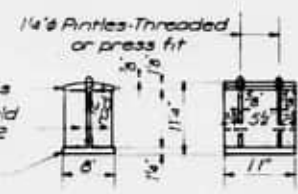
DETAIL OF PINTLE



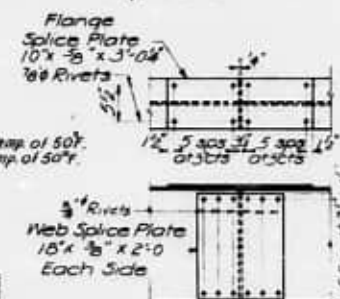
DETAIL OF BEARING
AT PIER 1
AND ABUTMENTS



DETAIL OF BEARING
AT PIER 2



DETAIL OF SPLICE



NOTES

* 1/4" A325 anchor bolts to be grouted into drilled holes after beams are in place, or bolts at fixed pier may be built into the masonry.

D* = 1/100 ft. of exp. for every 15° below the normal temp. of 50°F.
D** = 1/100 ft. of exp. for every 15° above the normal temp. of 50°F.

10x 3/8
700 Ribs

DESIGNED	JTL
CHECKED	LD
DRAWN	AME 8/2/22
CHECKED	TLL

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

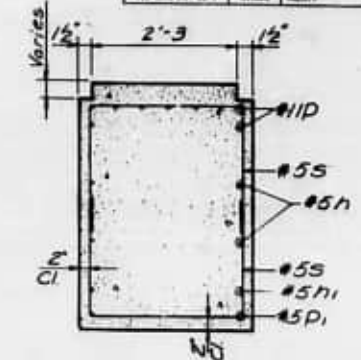
DATE	BY	CHKD	APPD	REV	SHEET NO.
11-1-61	J.P.H.	G.F.		1	5
11-1-61	J.P.H.	G.F.		2	5
11-1-61	J.P.H.	G.F.		3	5

SHEET NO. 5
5 SHEETS

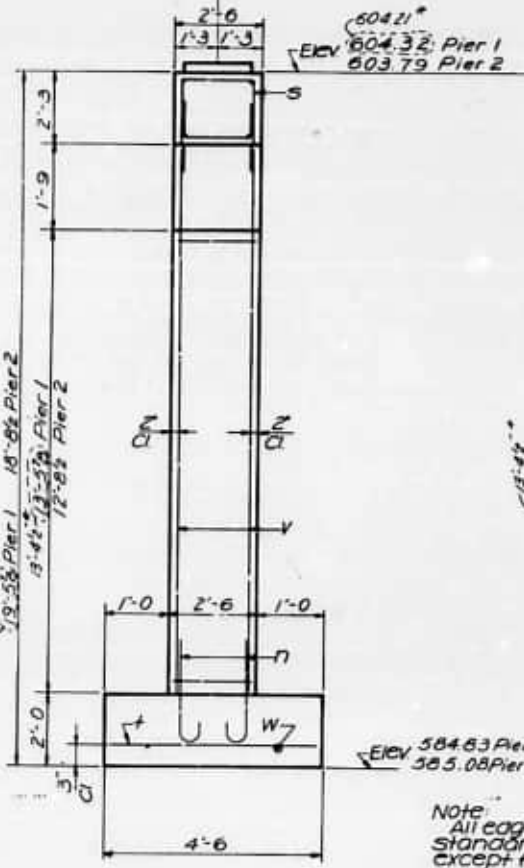
PGL Pier 1 Sta. 27+71.46
Elev. 608.80
PGL Pier 2 Sta. 28+17.71
Elev. 608.42



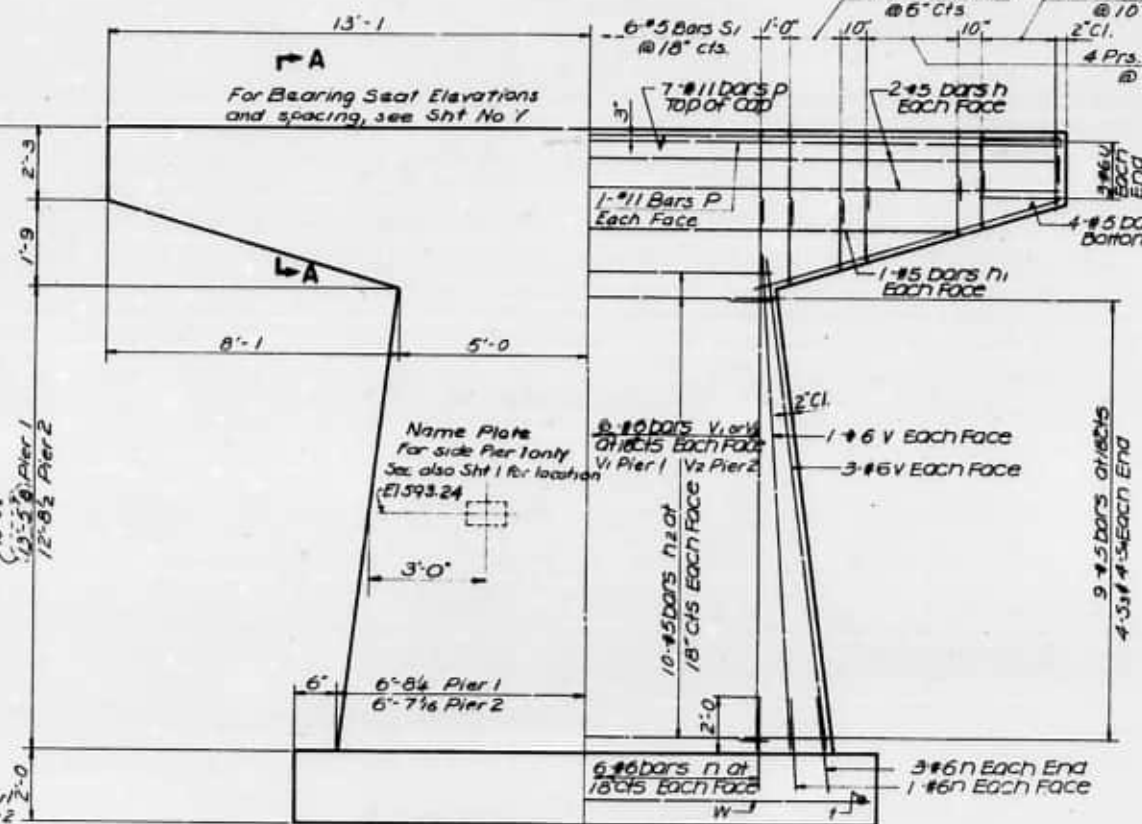
TOP PLAN



SECTION A-A



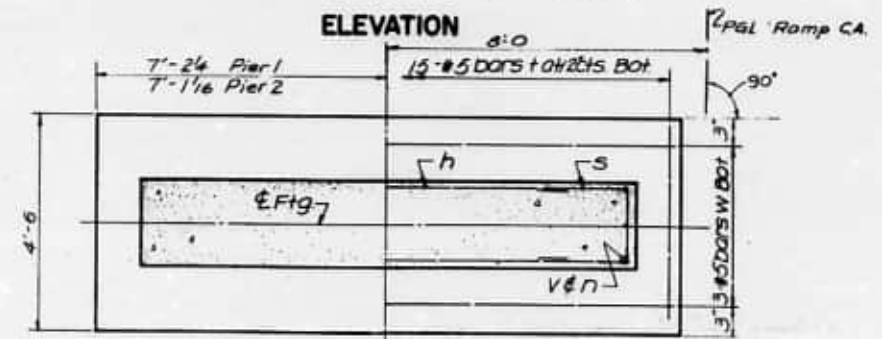
END VIEW



DIMENSIONS

REINFORCEMENT

ELEVATION



FOOTING PLAN

s BARS

A & B DIMENSIONS

BAR	NO	SIZE	LNTH	SHAPE
s1	2	2-2	2-3	
s2	2	2-2	2-2	
s3	2	2-2	2-10	
s4	2	2-2	2-0	
s5	2	2-2	1-9	

u BARS



n BARS



2 PIERS
BILL OF MATERIAL

BAR	NO	SIZE	LNTH	SHAPE
n	8	4	25-10	
n1	4	4	17-8	
n2	40	4	9-8	
n	44	6	4-5	
p	18	11	25-10	
p1	16	4	8-4	
s1	44	3	7-0	
s2	32	3	6-6	
s3	20	3	7-10	
s4	16	3	6-2	
s5	32	3	5-0	
t	30	4	4-0	
u	12	6	10-2	
v	20	6	15-6	
v1	12	6	16-2	
v2	12	6	15-4	
w	6	3	13-0	
Rock Exc. Pier #1			Cu yds	15
Rock Exc. Pier #2			Cu yds	15
Reinf. Bars	106		6020	
Conc. Pier #1			Cu yds	277
Conc. Pier #2			Cu yds	289

Maximum bearing pressure
= 6 1/2 Tons / 5 ft.

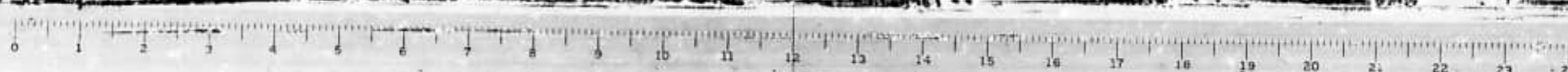
PIERS
RAMP CA OVER F.A. RTE. 8
F.A. RTE. 8 STA. 28+52.21

F.A. ROUTE 8
SECTION 3-2-1
Scale: NO SCALE
Date: Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY N.J. NEW YORK N.Y. CRYSTAL LAKE, ILL.

DESIGNED	J.D.
CHECKED	G.F.
DRAWN	J.P.H.
CHECKED	T.L.L.

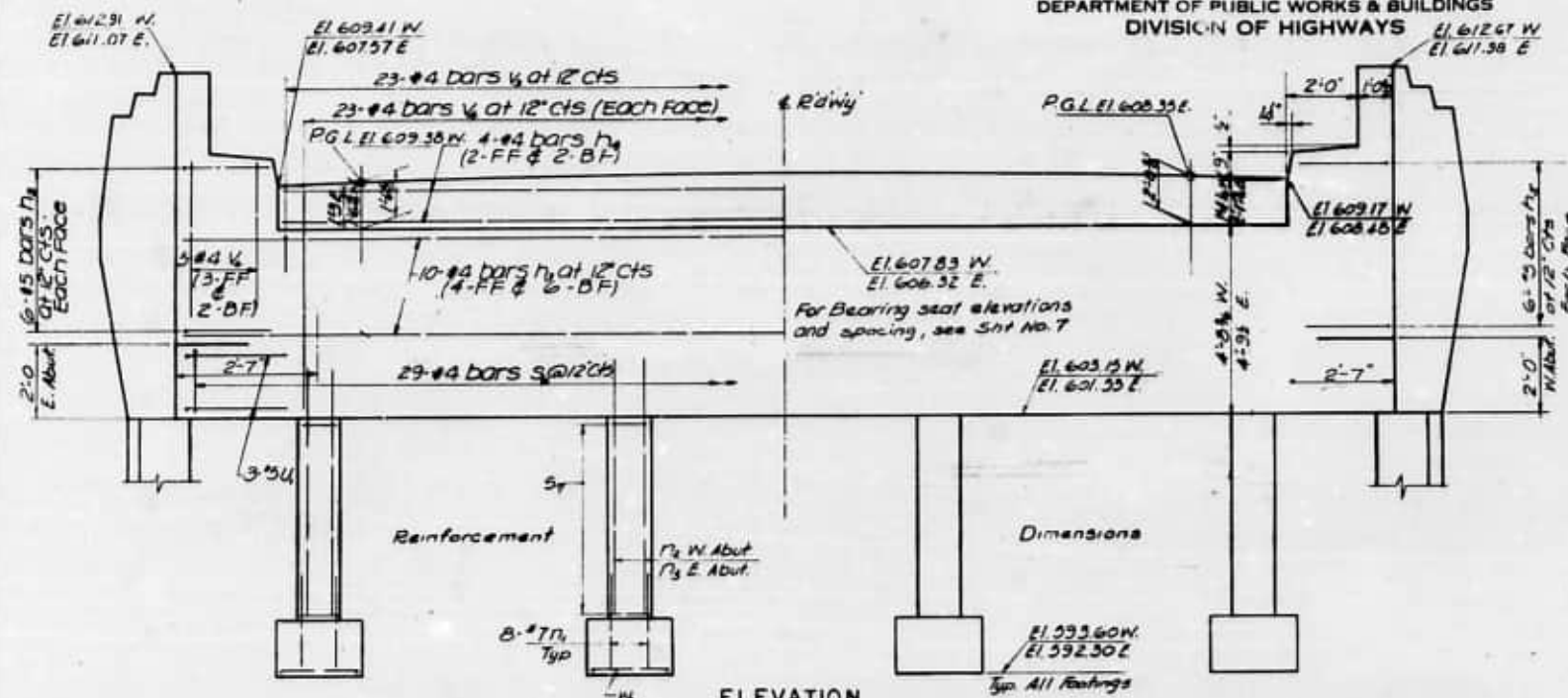
* Revised Dimensions / Elevation 4-28-66 L.W.



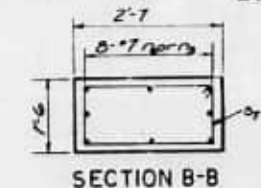
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	BY	CHKD	DATE	BY	CHKD
11/15/64	J.P.	W.L.	11/17/64	J.P.	W.L.
11/15/64	J.P.	W.L.	11/17/64	J.P.	W.L.

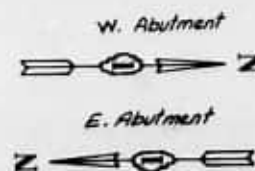
SHEET NO. 6
3 SHEETS



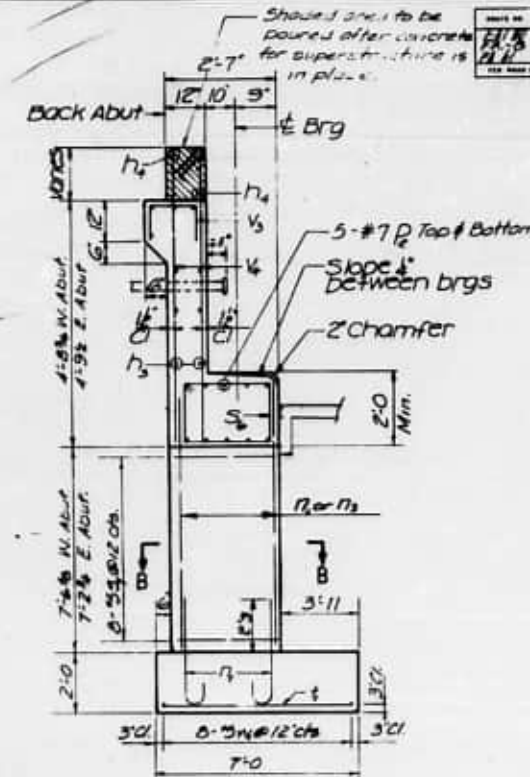
ELEVATION



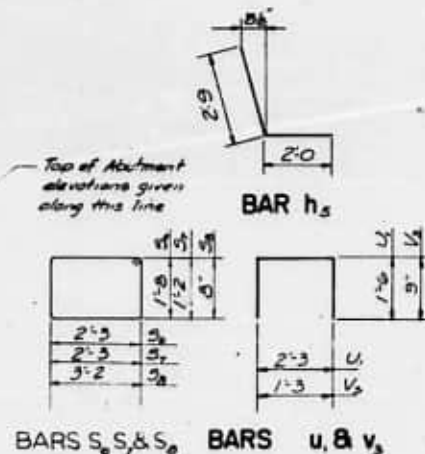
SECTION B-B



PLAN



SECTION A-A



2 ABUTMENTS
BAR LIST

Bar	NO	SIZE	Lgth	Shape
n ₁	20	#4	27'-8"	—
n ₂	8	#4	21'-8"	—
n ₃	24	#5	4'-9"	L
n ₄	88	#7	4'-10"	—
n ₅	44	#7	9'-4"	—
n ₆	44	#7	9'-0"	—
P ₁	20	#7	27'-8"	—
S ₁	58	#4	8'-8"	□
S ₂	64	#5	7'-10"	□
S ₃	32	#5	8'-0"	□
U ₁	12	#3	5'-3"	□
U ₂	72	#3	6'-6"	—
V ₁	46	#4	2'-9"	□
V ₂	66	#4	5'-8"	—
W ₁	96	#5	2'-6"	—

2 ABUTMENTS
BILL OF MATERIAL

Item	UNIT	QUAN.
Reinf. Bars	lbs.	8430
Class X Conc. Abut.	Cu. Yds.	34.8
Class X Conc. W. Abut.	Cu. Yds.	33.9
Rock Exc. E. Abut.	Cu. Yds.	5
Rock Exc. W. Abut.	Cu. Yds.	5
Class A Exc. E. Abut.	Cu. Yds.	10.8
Class A Exc. W. Abut.	Cu. Yds.	14.6

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts. Maximum bearing pressure = 32 ton/S.F. Footing should extend 1'-0" into Sound Rock.

DESIGNED	L.D.
CHECKED	GF
DRAWN	SEF
CHECKED	224

ABUTMENTS
RAMP C.A. OVER F.A. RTE. 8
F.A. RTE. 8 STA. 28+52.21

F.A. ROUTE 8
SECTION I-D-2
Scale: NO SCALE
PROJECT
WILL COUNTY
Date: Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

11-15-64 J.P. Class X E. abut. from 34.6 to 34.8 w/ys. 11' abut. from 32.7 to 32.9 w/ys.

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

DATE	BY	CHKD	APPD	REV
11-19-64	J.M.J.			
11-19-64	J.M.J.			

Sheet 7
8 Sheets

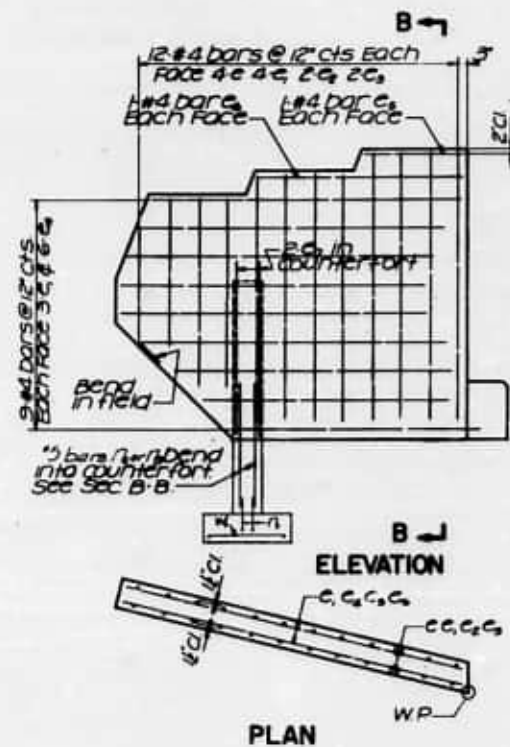
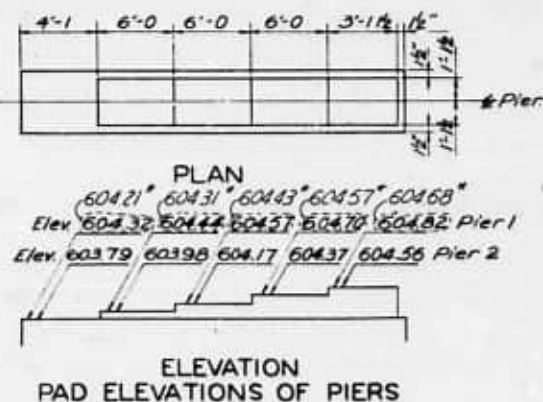
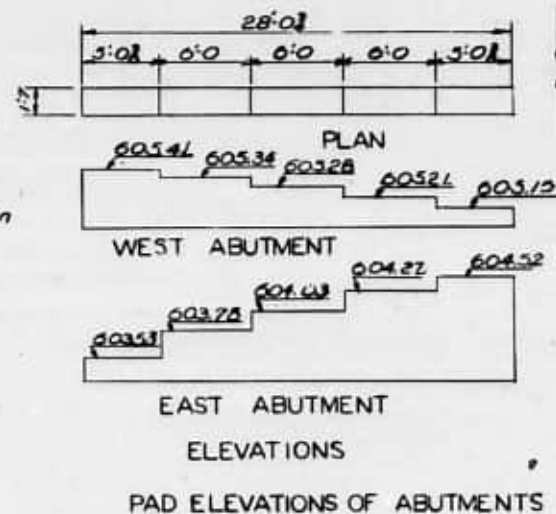
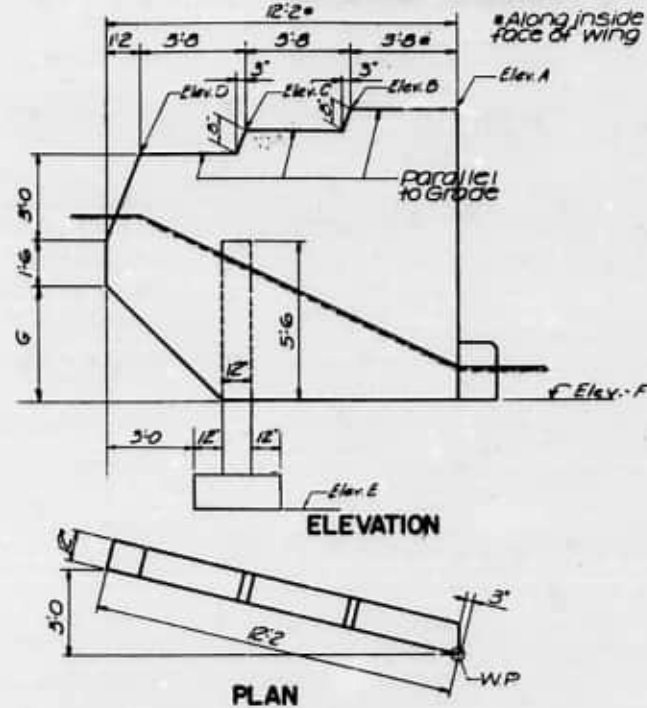


TABLE OF WINGWALL ELEVATIONS & DIMENSIONS

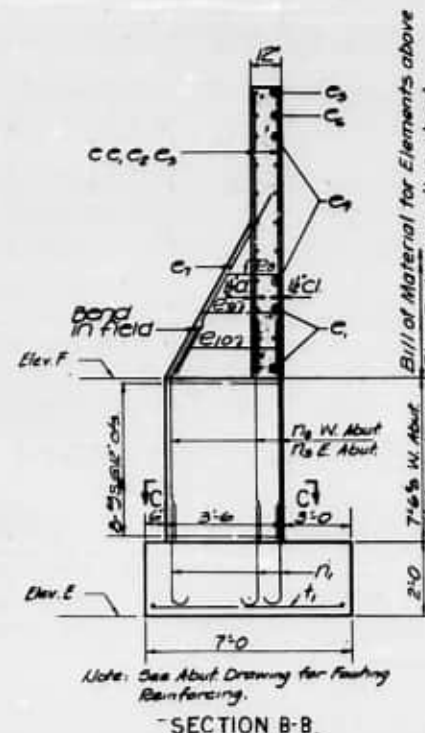
Wingwall	PI	A	B	C	D	E	F	G
E. Abut.	N.E. W.	611.07	611.08	610.42	609.76	592.50	601.33	3'-8 5/8"
	S.E. W.	611.38	611.38	611.32	610.46	592.50	601.33	4'-7 1/2"
W. Abut.	N.W. W.	612.67	612.71	611.23	611.54	593.60	603.13	3'-10 1/2"
	S.W. W.	612.91	612.98	612.38	611.78	593.60	603.13	4'-15"



ELEVATION
PAD ELEVATIONS OF PIERS



PAD ELEVATIONS OF ABUTMENTS



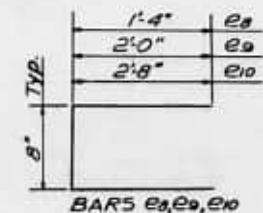
SECTION C-C

ONE END POST
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
C	8	#4	9.3	---
C	14	#4	8.5	---
C	4	#4	6.6	---
C	4	#4	5.0	---
C	12	#4	10.6	---
C	2	#4	3.6	---
C	2	#4	7.0	---
C	2	#4	7.0	---
C	1	#4	3.3	---
C	1	#4	4.5	---
C	1	#4	5.10	---

W. Abut. 1st Abut.	105	280
E. Abut. 1st Abut.	105	280
W. Abut. 2nd Abut.	105	280
E. Abut. 2nd Abut.	105	280

*Included in quantity on Sht. No. 6



BAR 5 E9, E9, E10

PIER ELEVATIONS & ABUTMENT DETAILS

RAMP CA

OVER F.A.R.T.E. 8

F.A.R.T.E. 8 STA. 28+52.21

F.A. ROUTE 8

SECTION (STR. 4)

Scale: NO SCALE

PROJECT

WILL COUNTY

Date: Nov. 30, 1961

BLAUVELT ENGINEERING CO.

CONSULTING ENGINEERS

WOODSBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

* Revised Elevations 4-28-66 L.W.

11-19-64 J.M.J. Rev. all end post elevations, class x conc. abut. from 7.8 to 8.0 cu yds. E. Abut. from 8.9 to 8.2 cu yds.

Bench Mark No. 44A: RR Spk. in power pole NW Corner
Lucas and Hunter Sts. Elev. 590.454

No Existing Structure

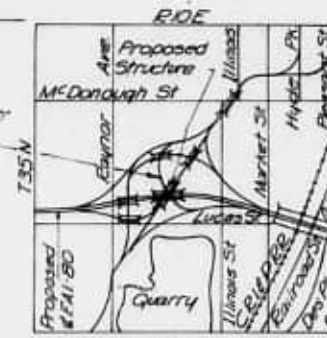
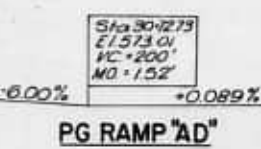
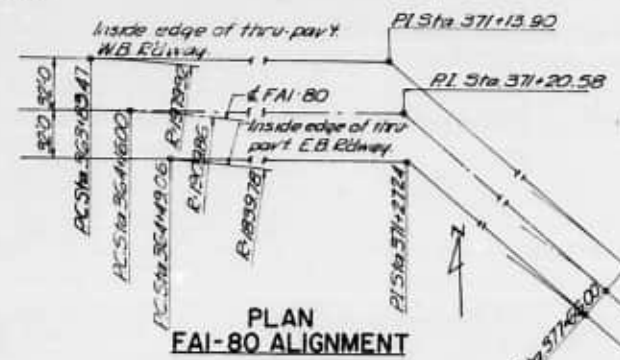
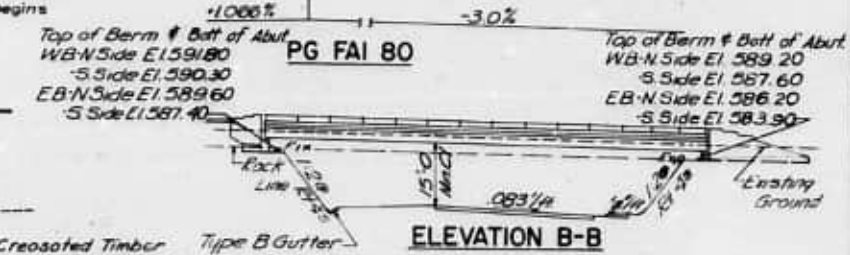
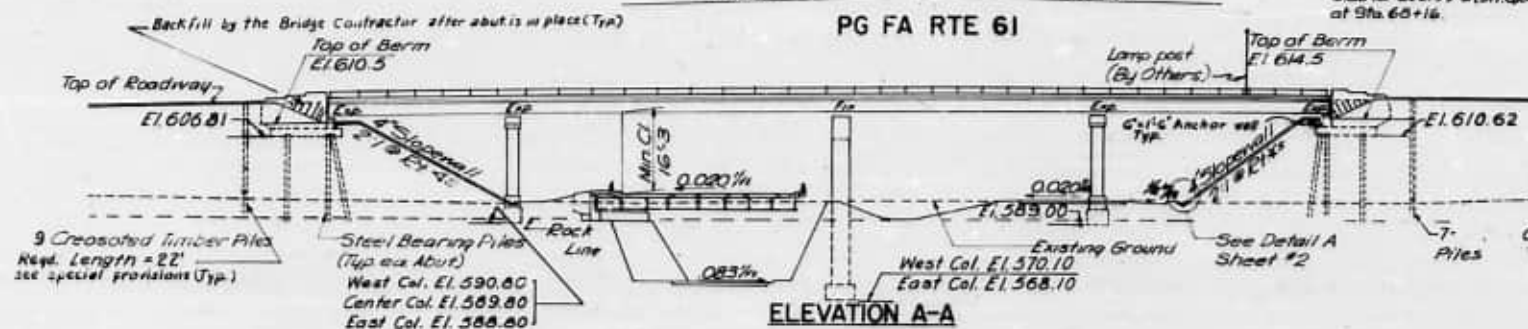
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PIV Sta 358+60
EI 622.59
VC+1000'
MO+813'

DATE	REVISION	BY	CHKD	APPD	SHEET NO.
11/1/59	1	WILL	197	113	12 SHEETS

PG FA RTE 61

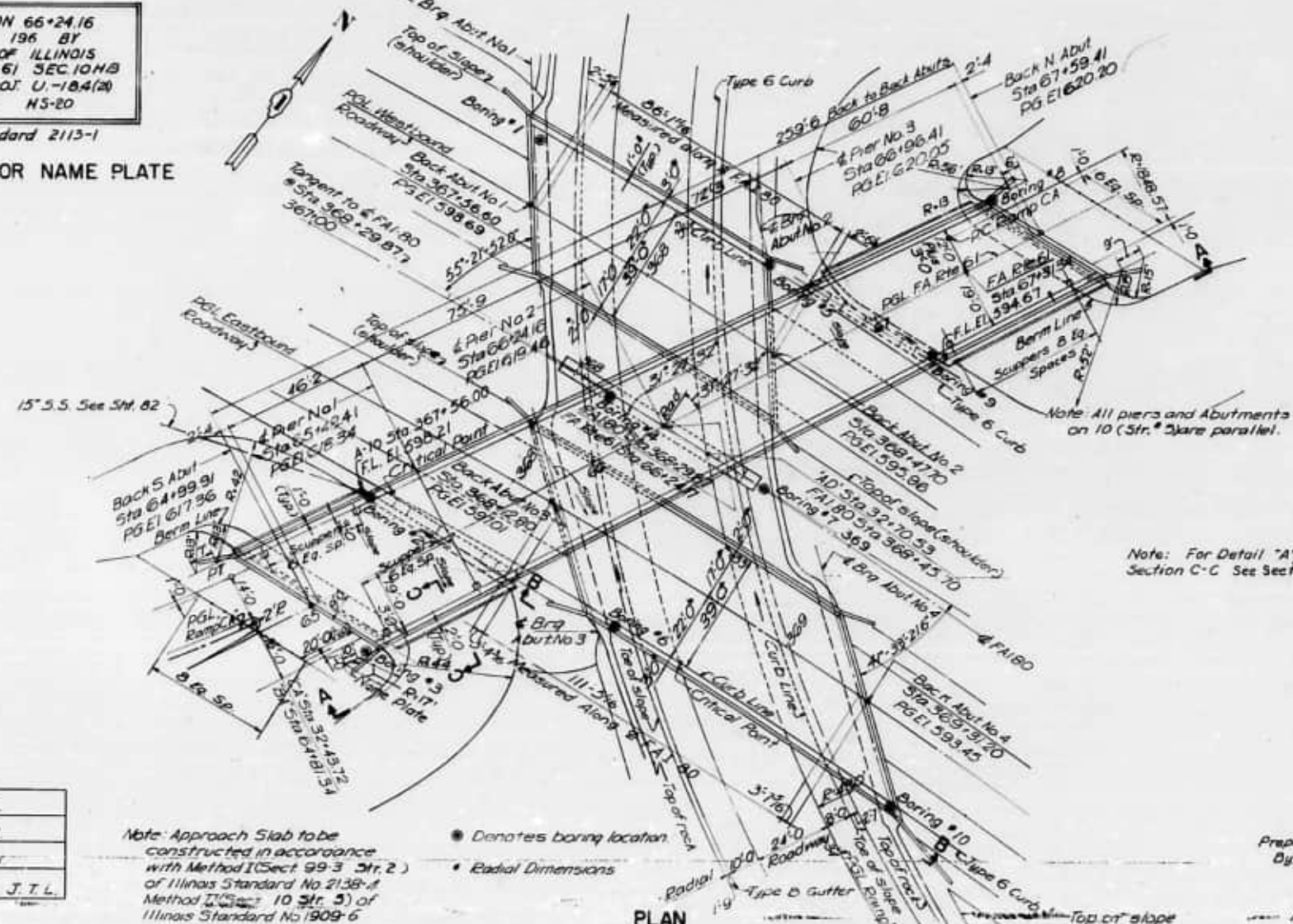
Approach Slab for Sec. 10 (Str. 5)
ends at Sta. 66+16 and Approach
Slab for Sec. 9-3 (Str. 6) begins
at Sta. 66+16.



STATION 66+24.16
BUILT 196 BY
STATE OF ILLINOIS
F.A. RTE. 61 SEC. 10 NB
F.A. PROJ. U-184(2)
LOADING HS-20

See Standard 2113-1

LETTERING FOR NAME PLATE



Note: Approach Slab to be
constructed in accordance
with Method I (Sect. 99-3 Str. 2)
of Illinois Standard No. 2138-A
Method II (Sect. 10 Str. 5) of
Illinois Standard No. 1909-6

Note: For Detail "A", G.I.C. anchor wall detail and
Section C-C. See Sect. No. 2

Note: This route has been selected as a 15'-0"
vertical clearance route.

DESIGNED	C. S.
CHECKED	R. H.
DRAWN	C. N.
CHECKED	R. H. & J. T. L.

Prepared and Recommended
By: Blauvelt Engineering Co.
Structural Engineer
#81-2251
Allen H. Blauvelt

GENERAL PLAN & ELEVATION
F.A. ROUTE 61 OVER F.A.I. ROUTE 80
F.A. RTE. 61 STA. 66+24.16

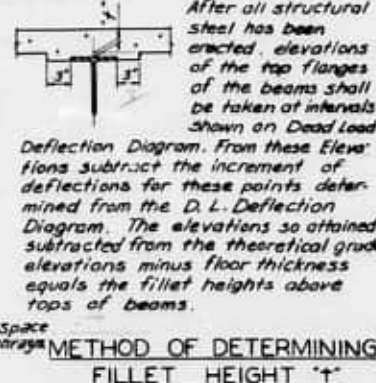
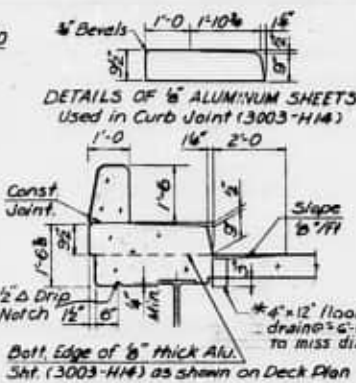
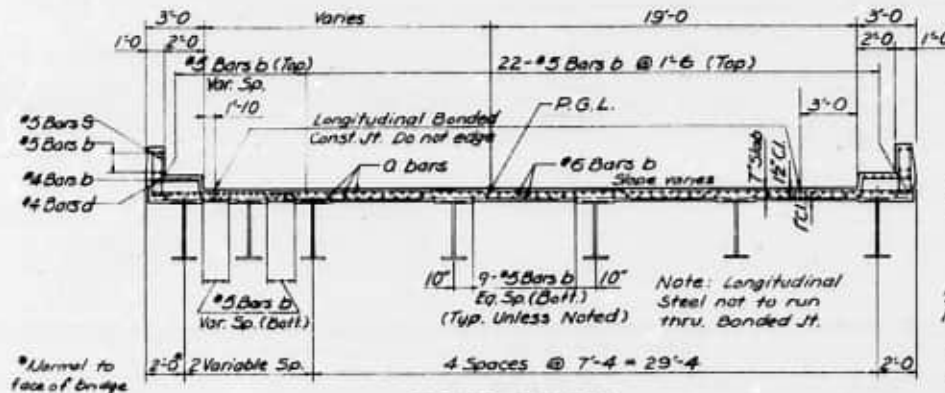
F.A. ROUTE 61
SECTION 10 (STR. 5)
Scale: NO SCALE
PROJECT U-184(2)
WILL COUNTY
Date: NOV. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. FORT LAKE, ILL.

Notes: Change Temp. of 13.150 Green Timber Piles from 27° to 32° F.



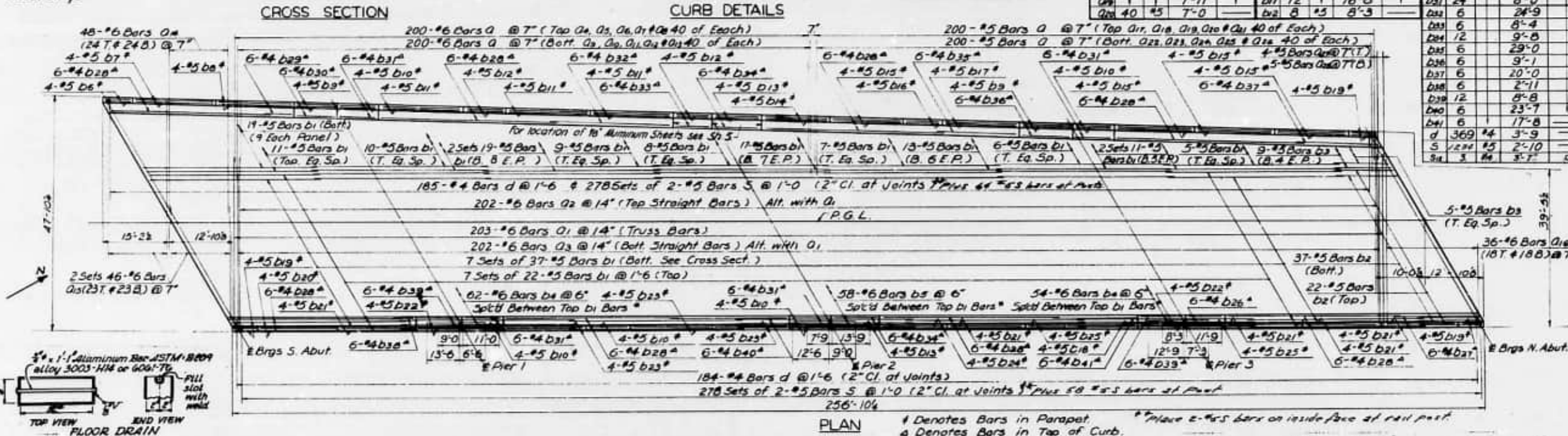
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE: 11/19/61
BY: J. P. S.
SHEET NO. 3
12 SHEETS



BILL OF REINFORCEMENT * Bars will vary from 2'-0" to full length.

Bar No.	Size	Length	Shape	Bar No.	Size	Length	Shape	Bar No.	Size	Length	Shape
a1	#5	35'-0"	~	a21	#5	6'-2"	~	b13	#5	9'-8"	~
a2	#5	33'-8"	~	a22	#5	11'-7"	~	b14	#5	14'-0"	~
a3	#5	31'-8"	~	a23	#5	10'-9"	~	b15	#5	16'-1"	~
a4	#5	13'-11"	~	a24	#5	9'-11"	~	b16	#5	7'-8"	~
a5	#5	13'-1"	~	a25	#5	9'-0"	~	b17	#5	15'-1"	~
a6	#5	12'-2"	~	a26	#5	8'-2"	~	b18	#5	14'-9"	~
a7	#5	11'-4"	~	a27	#5	5'-0"	~	b19	#5	3'-2"	~
a8	#5	10'-6"	~	a28	#5	7'-0"	~	b20	#5	16'-4"	~
a9	#5	15'-11"	~	a29	#5	36'-0"	~	b21	#5	15'-8"	~
a10	#5	15'-1"	~	a30	#5	11'-6"	~	b22	#5	8'-8"	~
a11	#5	14'-2"	~	a31	#5	17'-3"	~	b23	#5	16'-6"	~
a12	#5	13'-4"	~	a32	#5	20'-0"	~	b24	#5	15'-6"	~
a13	#5	12'-6"	~	a33	#5	21'-6"	~	b25	#5	7'-7"	~
a14	#5	24'-1"	~	a34	#5	5'-4"	~	b26	#5	7'-7"	~
a15	#5	24'-6"	~	a35	#5	16'-8"	~	b27	#5	18'-6"	~
a16	#5	32'-9"	~	a36	#5	15'-11"	~	b28	#5	36'-0"	~
a17	#5	9'-7"	~	a37	#5	8'-11"	~	b29	#5	3'-8"	~
a18	#5	8'-9"	~	a38	#5	8'-0"	~	b30	#5	8'-11"	~
a19	#5	7'-11"	~	a39	#5	16'-8"	~	b31	#5	8'-0"	~
a20	#5	7'-0"	~	a40	#5	8'-3"	~	b32	#5	24'-9"	~
								b33	#5	8'-4"	~
								b34	#5	9'-8"	~
								b35	#5	29'-0"	~
								b36	#5	9'-1"	~
								b37	#5	20'-0"	~
								b38	#5	2'-11"	~
								b39	#5	8'-8"	~
								b40	#5	23'-7"	~
								b41	#5	17'-8"	~
								b42	#5	3'-9"	~
								b43	#5	2'-10"	~
								b44	#5	3'-7"	~



ELEVATION - TOP OF SLAB ** (Elevations are not adjusted for dead load deflections)

Sta.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
A	616.17	616.52	616.86	617.19	617.50	617.72	618.02	618.30	618.57	618.84	619.03	619.30	619.43	619.52	619.64	619.73	619.85	619.94	620.02	620.09	620.18	620.23	620.27	620.31	620.33	620.35	620.36
B	616.58	616.89	617.19	617.48	617.75	617.93	618.19	618.44	618.68	618.91	619.13	619.30	619.43	619.51	619.62	619.73	619.83	619.92	620.00	620.07	620.15	620.20	620.24	620.28	620.30	620.32	620.32
C	616.97	617.23	617.49	617.74	617.98	618.12	618.34	618.56	618.77	618.97	619.15	619.29	619.42	619.49	619.60	619.71	619.81	619.90	619.97	620.04	620.12	620.17	620.21	620.25	620.27	620.29	620.29
D	617.32	617.55	617.77	617.98	618.18	618.30	618.49	618.66	618.83	618.99	619.14	619.27	619.40	619.47	619.59	619.68	619.77	619.86	619.93	620.00	620.07	620.12	620.15	620.18	620.20	620.22	620.22
E	617.43	617.65	617.85	618.05	618.24	618.35	618.52	618.69	618.84	618.99	619.13	619.26	619.38	619.44	619.55	619.65	619.73	619.82	619.89	619.95	620.01	620.06	620.09	620.12	620.13	620.14	620.14
F	617.45	617.66	617.86	618.06	618.24	618.35	618.52	618.68	618.83	618.97	619.11	619.23	619.35	619.41	619.52	619.61	619.70	619.77	619.84	619.90	619.96	620.00	620.03	620.05	620.06	620.07	620.08
G	617.47	617.68	617.88	618.08	618.24	618.35	618.52	618.67	618.82	618.96	619.09	619.21	619.32	619.38	619.48	619.57	619.65	619.73	619.79	619.85	619.90	619.94	619.96	619.98	619.99	619.99	619.98

See Sheet No. 4 for Location of Points. ** Where curb is over stringer, elevation shown is that of the projection of top of slab along its cross slope.

DESIGNED	J. P. S.
CHECKED	L. D.
DRAWN	J. P. N.
CHECKED	L. D.

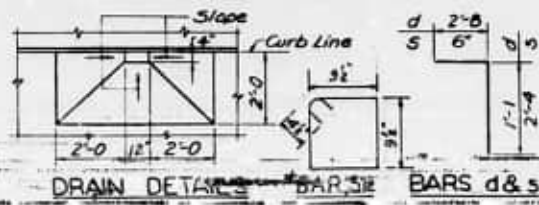
TOP OF BEAM ELEVATIONS

Sta.	A	B	C	D	E	F	G
1	615.50	617.05	617.43	618.89	619.05	619.51	619.58
2	615.50	617.05	617.43	618.89	619.05	619.51	619.58
3	615.50	617.05	617.43	618.89	619.05	619.51	619.58
4	615.50	617.05	617.43	618.89	619.05	619.51	619.58
5	615.50	617.05	617.43	618.89	619.05	619.51	619.58
6	615.50	617.05	617.43	618.89	619.05	619.51	619.58
7	615.50	617.05	617.43	618.89	619.05	619.51	619.58
8	615.50	617.05	617.43	618.89	619.05	619.51	619.58
9	615.50	617.05	617.43	618.89	619.05	619.51	619.58
10	615.50	617.05	617.43	618.89	619.05	619.51	619.58
11	615.50	617.05	617.43	618.89	619.05	619.51	619.58
12	615.50	617.05	617.43	618.89	619.05	619.51	619.58
13	615.50	617.05	617.43	618.89	619.05	619.51	619.58
14	615.50	617.05	617.43	618.89	619.05	619.51	619.58
15	615.50	617.05	617.43	618.89	619.05	619.51	619.58
16	615.50	617.05	617.43	618.89	619.05	619.51	619.58
17	615.50	617.05	617.43	618.89	619.05	619.51	619.58
18	615.50	617.05	617.43	618.89	619.05	619.51	619.58
19	615.50	617.05	617.43	618.89	619.05	619.51	619.58
20	615.50	617.05	617.43	618.89	619.05	619.51	619.58
21	615.50	617.05	617.43	618.89	619.05	619.51	619.58
22	615.50	617.05	617.43	618.89	619.05	619.51	619.58
23	615.50	617.05	617.43	618.89	619.05	619.51	619.58
24	615.50	617.05	617.43	618.89	619.05	619.51	619.58
25	615.50	617.05	617.43	618.89	619.05	619.51	619.58
26	615.50	617.05	617.43	618.89	619.05	619.51	619.58
27	615.50	617.05	617.43	618.89	619.05	619.51	619.58

BILL OF MATERIALS

Class "X" Concrete	Cu'd	329.1
Reinforcement Bars	Lbs.	86,040
Structural Steel	Lbs.	355,700

* Structural Steel includes Weight of Rockers, Bolsters, Bearing Plates, Lead Plates, Pintles and Anchor Bolts.
Estimated Wt. = 10,767 lbs.



SLAB PLAN & CROSS SECTION
F.A. ROUTE 61 OVER F.A.I. ROUTE 80
F.A. ROUTE 61
SECTION 10-STR 5
WILL COUNTY
Nov. 30, 1961

BLAUVELT ENGINEERING CO., INC.
CONSULTING ENGINEERS
NEW YORK, N.Y. CRYSTAL LAKE, ILL.

AS AWARDED

12-21-61 Printed 8 1/2 x 11 bars on each rail post. Concrete quantity of Reinforcement 85,440 lbs. 86,040 lbs. 86,040 lbs.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
100	10	WILL	199	116
FED. ROAD DIST. NO. 1		SHEET NO. 4 12 SHEETS		

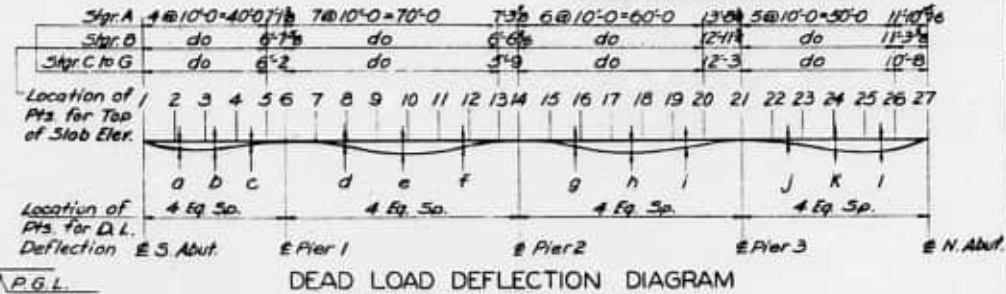


Diagram illustrating the details of an angle guard, showing reinforcement bars and abutments. The diagram includes the following labels and dimensions:

- Top View:**
 - Reinforcement bars: $\frac{1}{2} \times 8"$ CR1020.5TL Granular or Solid Flux Filled Studs Automatically end welded at $12" \pm$ cts.
 - Two Stairs C to G
 - Abutments: S. Abut., N. Abut.
 - Dimensions: $47'$ alt. Spacing @ $12" \pm$, $37'$ alt. Spacing @ $12" \pm$, $12"$ S. Abut., $12"$ N. Abut.
 - Label: $L = 4' \pm$ Each side
- Side View:**
 - Abutments: S. Abut., N. Abut.
 - Dimensions: $12"$, $12"$ (Top), $12"$ (Top), $47'$ alt. Spacing @ $12" \pm$, $37'$ alt. Spacing @ $12" \pm$, $12"$.
 - Label: Front Face of Backwall
- Overall Label:** ANGLE GUARD DETAILS

TABLE OF DEAD LOAD DEFLECTION

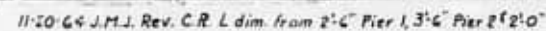
14. <u>Star</u>	A	B	C to F	G
O	$\frac{1}{16}$ "	$\frac{1}{16}$ "	$\frac{3}{32}$ "	$\frac{1}{16}$ "
D	$\frac{1}{32}$ "	$\frac{1}{16}$ "	$\frac{1}{32}$ "	$\frac{3}{32}$ "
C	0	0	0	$-\frac{3}{32}$ "
d	$\frac{3}{16}$ "	$\frac{1}{32}$ "	$\frac{3}{16}$ "	$\frac{1}{32}$ "
e	$\frac{3}{16}$ "	$\frac{1}{32}$ "	$\frac{1}{8}$ "	$\frac{2}{32}$ "
f	$\frac{3}{16}$ "	$\frac{1}{32}$ "	$\frac{3}{32}$ "	$\frac{1}{8}$ "
g	$\frac{3}{32}$ "	$\frac{3}{32}$ "	$\frac{1}{8}$ "	$\frac{3}{32}$ "
h	$\frac{3}{16}$ "	$\frac{3}{32}$ "	$\frac{1}{8}$ "	$\frac{1}{32}$ "
i	$\frac{3}{16}$ "	$\frac{3}{32}$ "	$\frac{3}{32}$ "	$\frac{3}{16}$ "
j	$\frac{3}{16}$ "	$\frac{3}{32}$ "	$\frac{3}{32}$ "	$\frac{3}{32}$ "
k	$\frac{3}{16}$ "	$\frac{1}{32}$ "	$\frac{3}{16}$ "	$\frac{7}{16}$ "
l	$\frac{3}{16}$ "	$\frac{3}{16}$ "	$\frac{1}{8}$ "	$\frac{1}{32}$ "

DIMENSIONS FOR BEARINGS

Strg.	Abut. 1		Pier 1		Pier 3		Abut. 2	
Dim.	A-CG	B	A-CG	B	A-CG	B	A-CG	B
a	34	34	32	3	3	32	34	34
b	62	62	62	6	6	62	62	62
c	9	9	9	10	10	9	9	9
fr	13	13	13	12	12	13	13	13
fr	1	1	1	1	1	1	1	1
fa	202	202	21	192	192	21	202	202
to	146	146	18	2	2	18	146	146

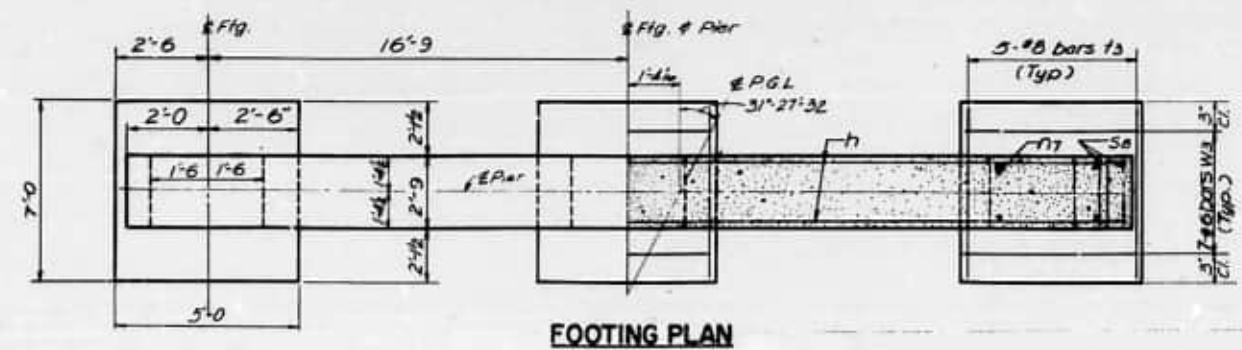
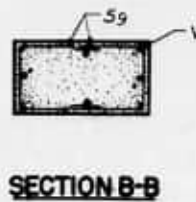
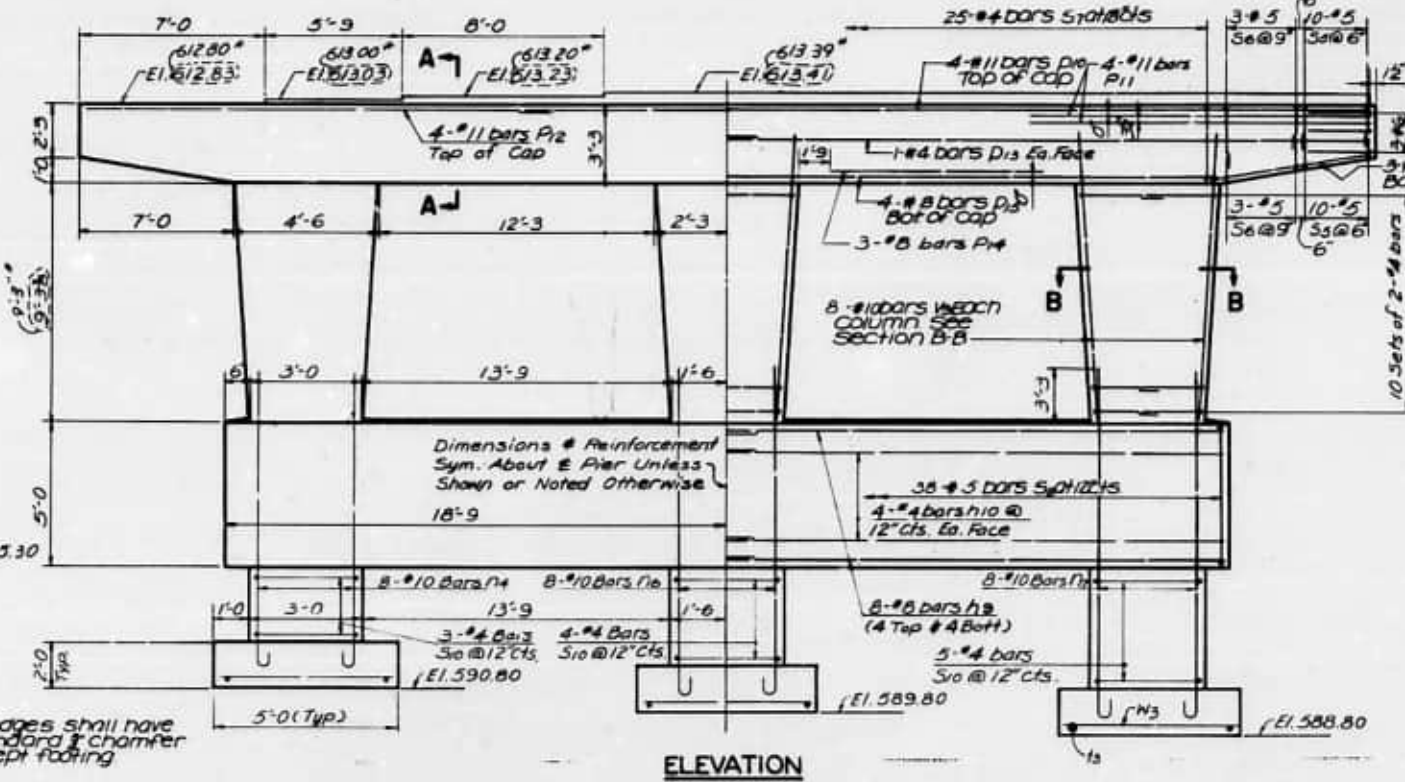
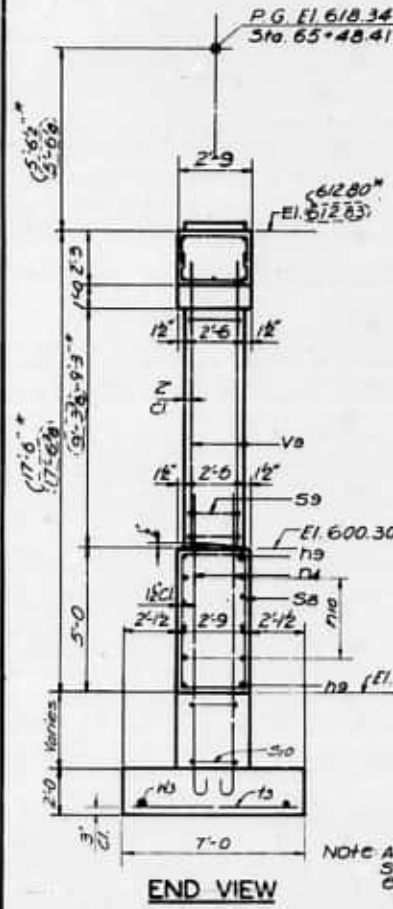
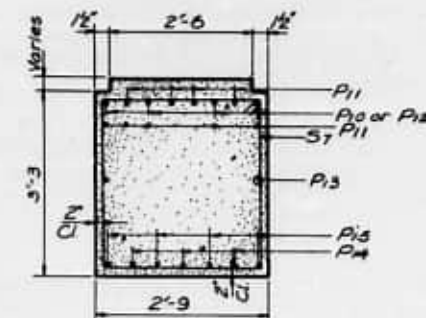
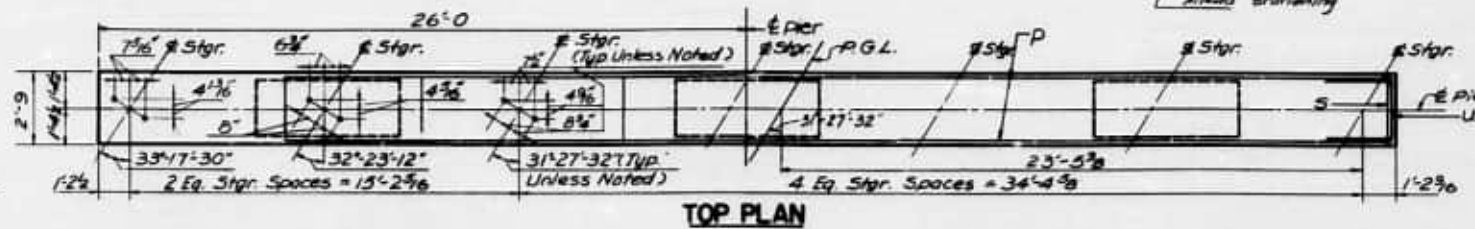
FA ROUTE 61 STA. 66+24.16
FA ROUTE 81 PROJECT
SECTION 10-STR.5 WILL COUNTY
Scale: NO SCALE Date: Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.



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

SHEET NO. 6
12 SHEETS



PIER
BILL OF MATERIAL

BAR	NO	SIZE	LGTH	SHAPE
P11	16	#8	19'-7"	—
P12	16	#8	19'-7"	—
P13	8	#10	13'-10"	—
P14	8	#10	14'-10"	—
P15	8	#10	14'-10"	—
P16	4	#11	36'-0"	—
P17	16	#11	12'-10"	—
P18	4	#11	13'-3"	—
P19	4	#4	26'-4"	—
P20	6	#8	7'-9"	—
P21	4	#8	36'-0"	—
P22	6	#4	7'-3"	—
S1	40	#5	6'-3"	□
S2	12	#5	8'-5"	□
S3	25	#4	11'-6"	□
S4	38	#5	13'-0"	□
S5	60	#4	7'-4"	□
T1	15	#8	6'-6"	□
S10	12	#4	11'-0"	□
U1	6	#6	10'-5"	□
V1	24	#10	12'-4"	—
W1	21	#6	4'-6"	—
Class X concrete Cu/Yd 38.3				
Reinf. Bars LB 8720				
Rock Excavation Cu/Yd 4				
Class A Excavation Cu/Yd 40				

§ BARS

§ BARS
A & B DIMENSIONS

BAR	A	B
S1	2'-3"	1'-11"
S2	2'-5"	2'-0"
S3	2'-2"	2'-7"

u BARS

n1	12'-5"	n6	13'-5"	1'-5"
n7	14'-5"			

n BARS

PIER NO. 1
F.A. ROUTE 61 OVER F.A. ROUTE 80
F.A. ROUTE 61 STA. 65+24.16
PROJECT
SECTION 10 (STR 5) WILL COUNTY
Scale: No Scale Date: Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRISTAL LAKE, ILL.

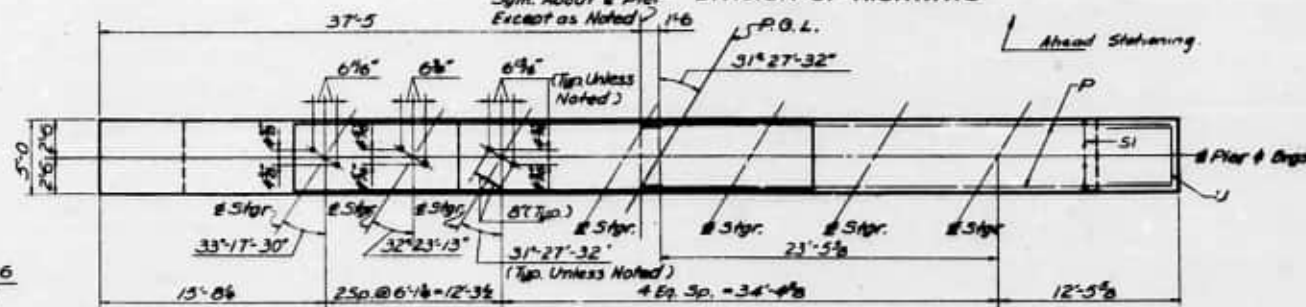
DESIGNED	G. F.
CHECKED	J. T. L.
DRAWN	J. J. H.
CHECKED	L. D.

* Pier Pier Elevations & Height of Column & 28-65 L W
© As Designed

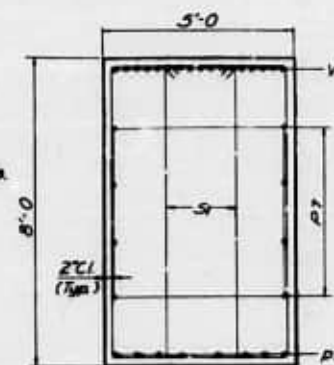


STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

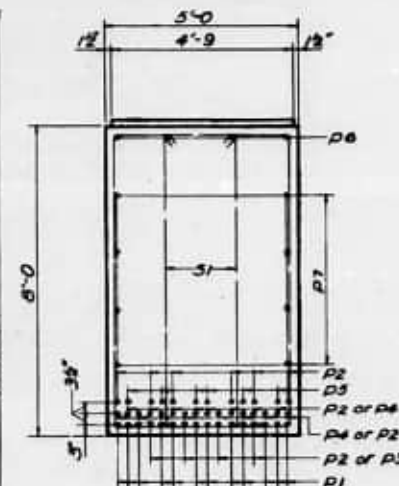
DATE	BY	CHKD	APPD	SHEET NO.
11/10/64	J. F. L.	J. T. L.	J. F. L.	7
11/10/64	J. F. L.	J. T. L.	J. F. L.	119



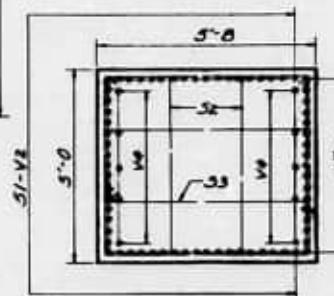
TOP PLAN



SECTION A-A



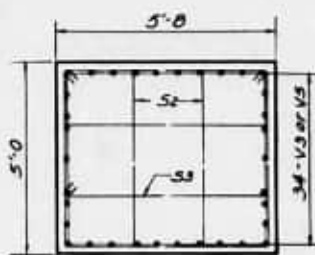
SECTION B-B



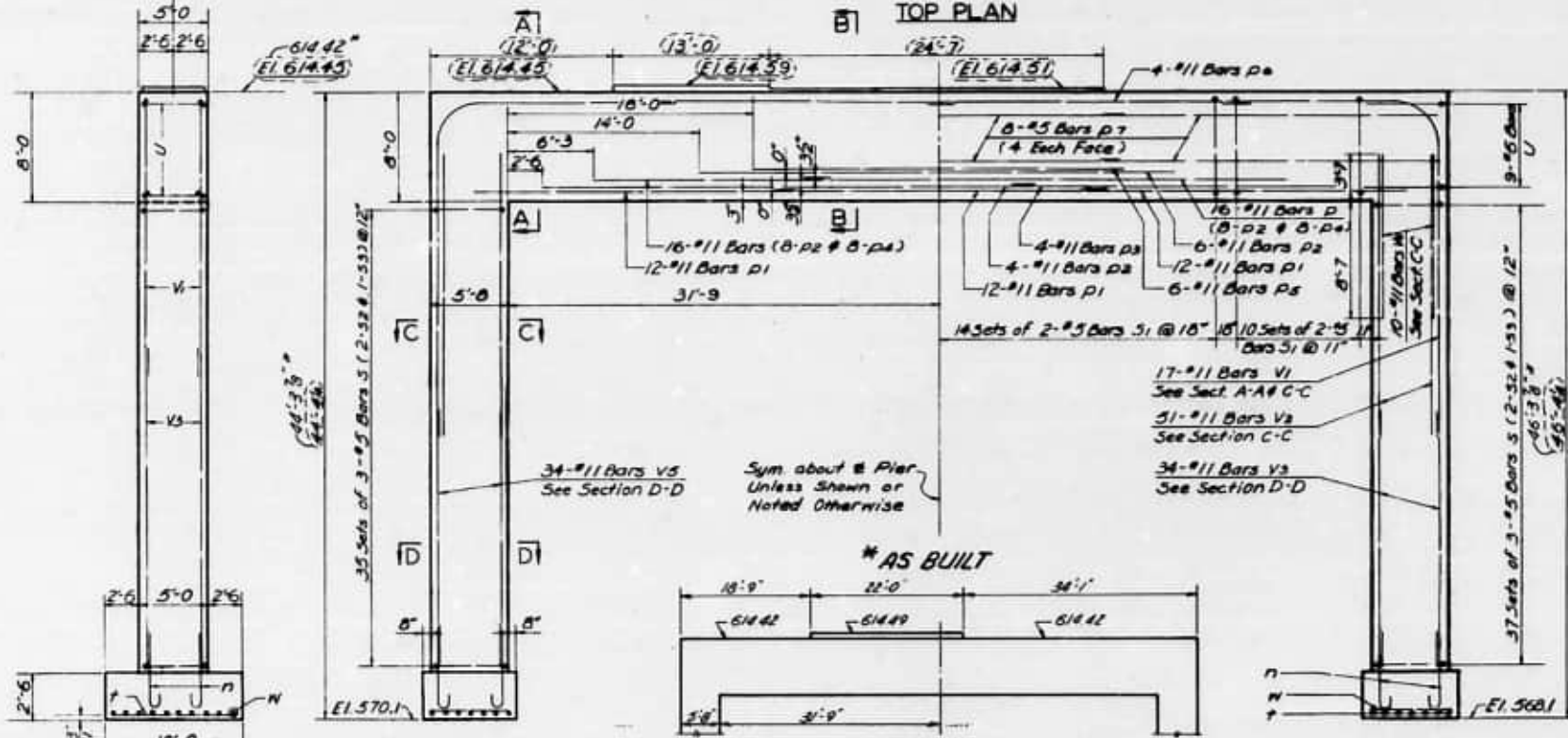
SECTION C-C

BILL OF MATERIAL

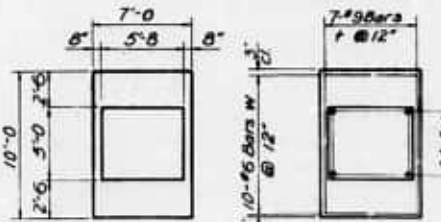
Bar	No.	Size	Length	Shape
P1	36	#11	25'-8	
P2	20		36'-0	
P3	4		26'-1	
P4	16		18'-7	
P5	6		27'-6	
P6	8	#11	24'-10	
P7	24	#5	25'-7	
S1	96	#5	22'-8	
S2	144	#5	17'-4	
S3	72	#5	15'-2	
T	14	#9	9'-6	
U	18	#6	14'-7	
V1	34	#11	40'-6	
V2	102		21'-7	
V3	34		22'-8	
V4	20		12'-2	
V5	34	#11	20'-8	
W	20	#6	6'-6	
N	68	#11	7'-8	



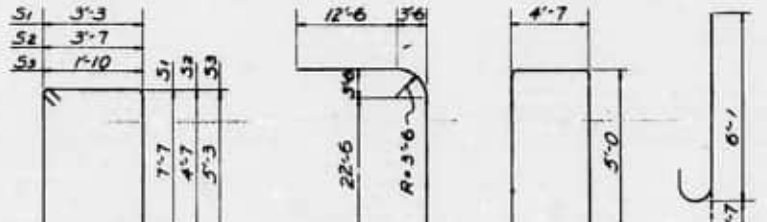
SECTION D-D



ELEVATION



FOOTING PLAN



S BARS V1 BARS V2 BARS V3 BARS V4 BARS V5 BARS

PIER NO. 2
F.A. ROUTE 61 OVER F.A. ROUTE 80
F.A. ROUTE 61 STA. 66+24.16
SECTION 10-5TR. 5
Scale: NO SCALE
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

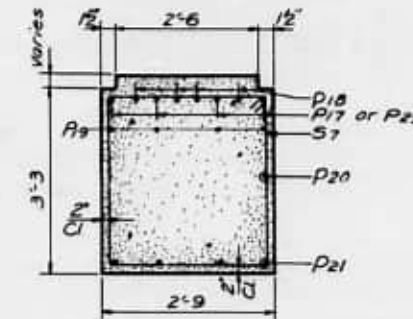
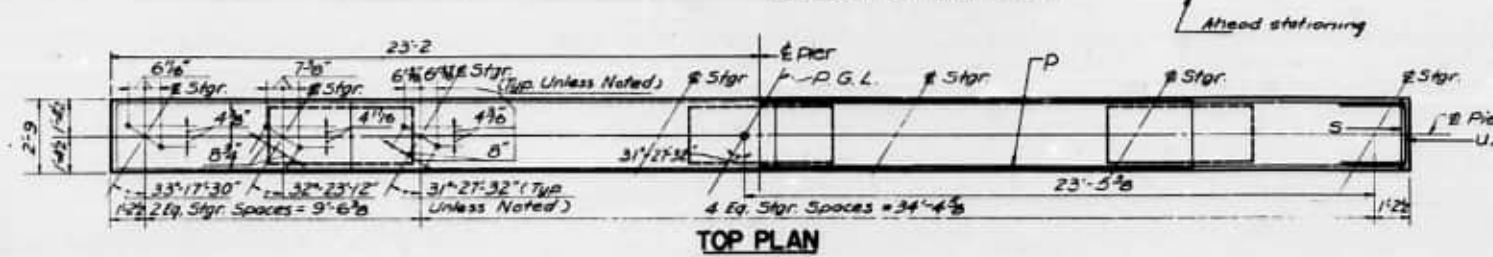
DESIGNED	G. F.
CHECKED	J. T. L.
DRAWN	J. F. L.
CHECKED	L. D.

* Rev. Pier Elevations & Height of Columns 4-28-66 L.W.
As Awarded

11-20-64 J.M.J. Rev. Rock Exc. from 21 to 114 cu. yds. & added 25 cu. yds. of class heavy for strc.

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

PROJECT NO.	SECTION	SHEET NO.	SHEET TOTAL
197	10	120	120



SECTION A-A

PIER
BILL OF MATERIAL

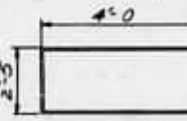
BAR	NO.	SIZE	LNTH	QTY
P11	10	#4	32'-6	—
P12	8	#8	32'-6	—
P15	24	#10	13'-1	—
P17	4	#11	31'-0	—
P18	8	#11	13'-4	—
P19	8	#10	11'-9	—
P20	4	#4	23'-6	—
P21	4	#10	33'-0	—
P22	6	#4	6'-9	—
P23	4	#11	17'-9	—
S5	40	#3	6'-3	—
S6	20	#3	6'-3	—
S7	23	#3	11'-8	—
S10	30	#4	7'-4	—
S11	34	#5	16'-8	—
T3	18	#8	6'-6	—
U2	6	#6	10'-5	—
V10	24	#10	17'-0	—
W3	21	#6	4'-6	—
Class I Concrete	Cu Yds	604		
Reinf. Bars	Lbs	8950		
Rock Excavation	Cu Yds	9		
Class A Excavation	Cu Yds	51		

BARS

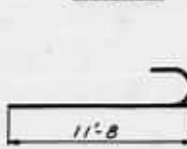


BARS
A & B DIMENSIONS

BAR	A	B
S5	2'-5	1'-11
S6	2'-5	2'-0
S10	2'-2	2'-7



U2 BARS

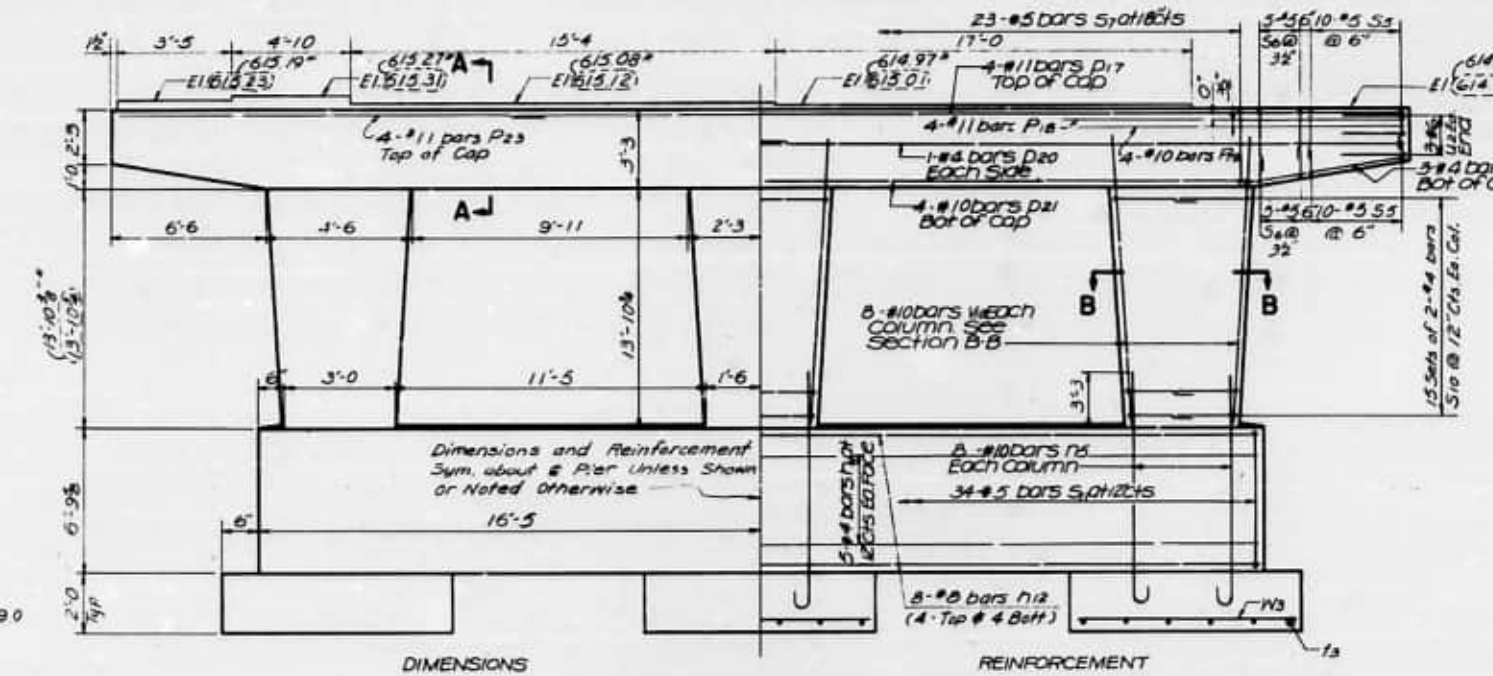


n5 BARS

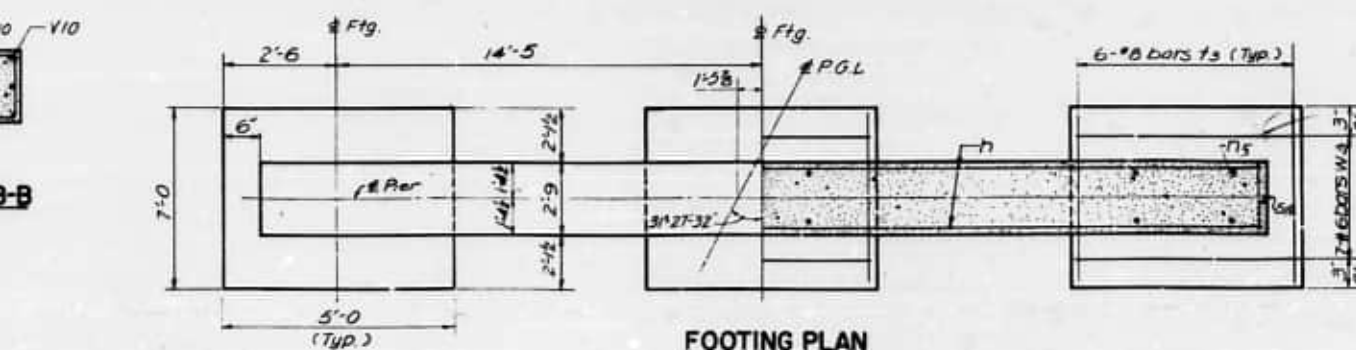


PIER NO. 3
F A ROUTE 61 OVER F A I ROUTE 80
F A ROUTE 61 STA 66+24.16

F A ROUTE 61
SECTION 10 (STR. 5)
PROJECT
WILL COUNTY
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
NEW YORK, N.Y.

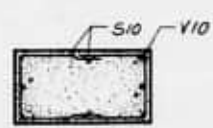


ELEVATION



FOOTING PLAN

SECTION B-B



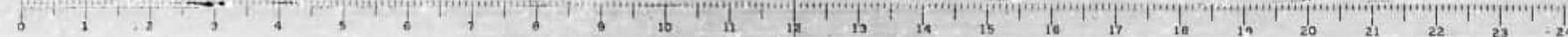
END VIEW

Note All edges shall have standard 3/8" chamfer except footing

DESIGNED	G. F.
CHECKED	J. T. L.
DRAWN	J. T. L.
CHECKED	L. D.

* Rev Pier Elevations & Height of Column 4-18-66 L.W.
1-20-64 Awarded

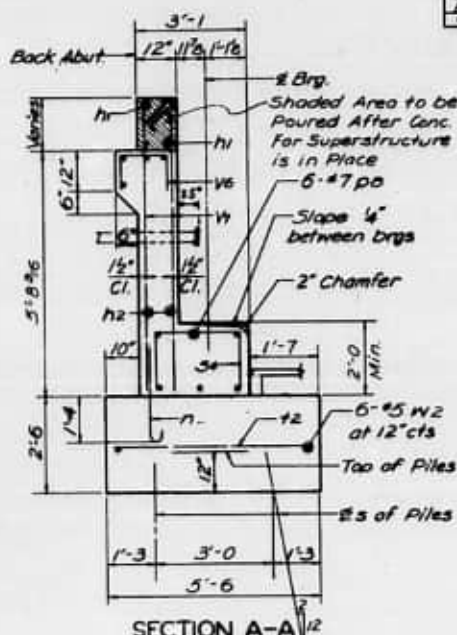
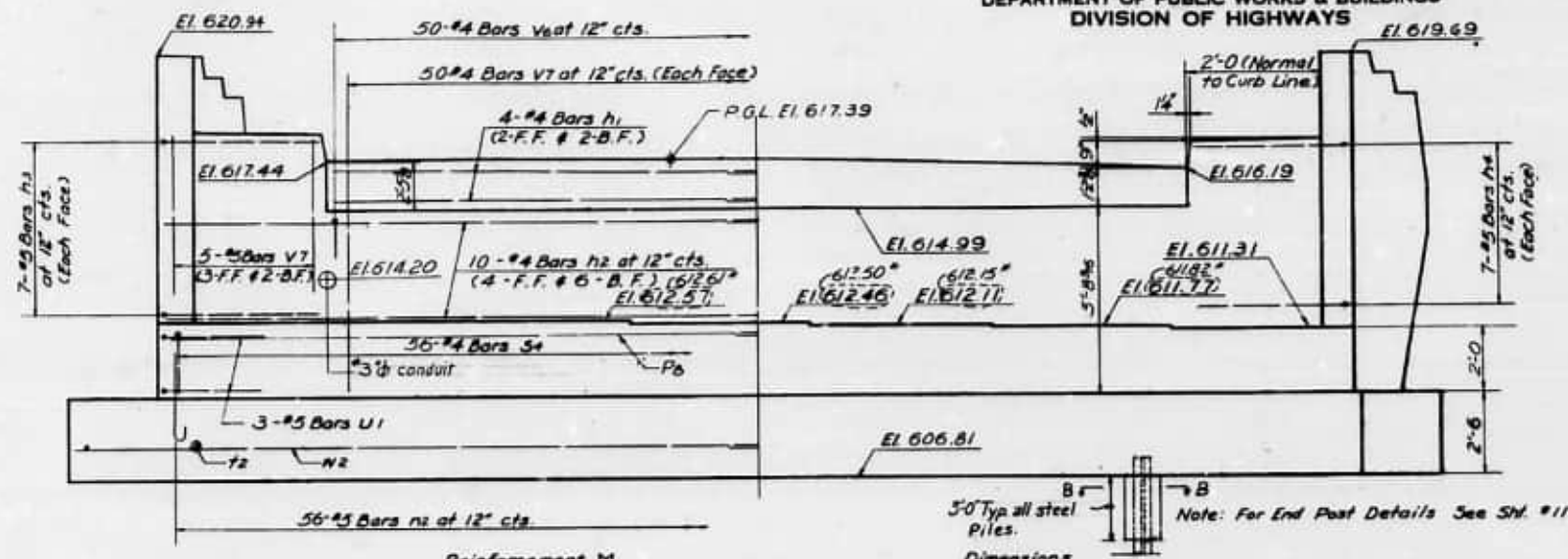
11-20-64 11M Rev. class A exc. from 40 to 51 cu yds. Rock exc. from 4 to 9 cu yds.



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

DATE	BY	CHKD	APPD	REV	SHEET NO.
11-20-64	J.P.S.	L.D.			121
11-20-64	J.P.S.	L.D.			122

12 SHEETS



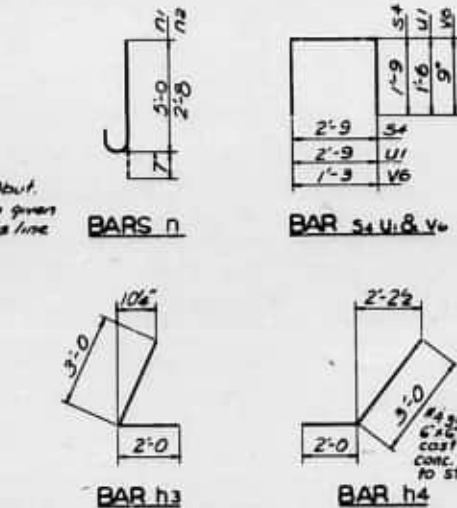
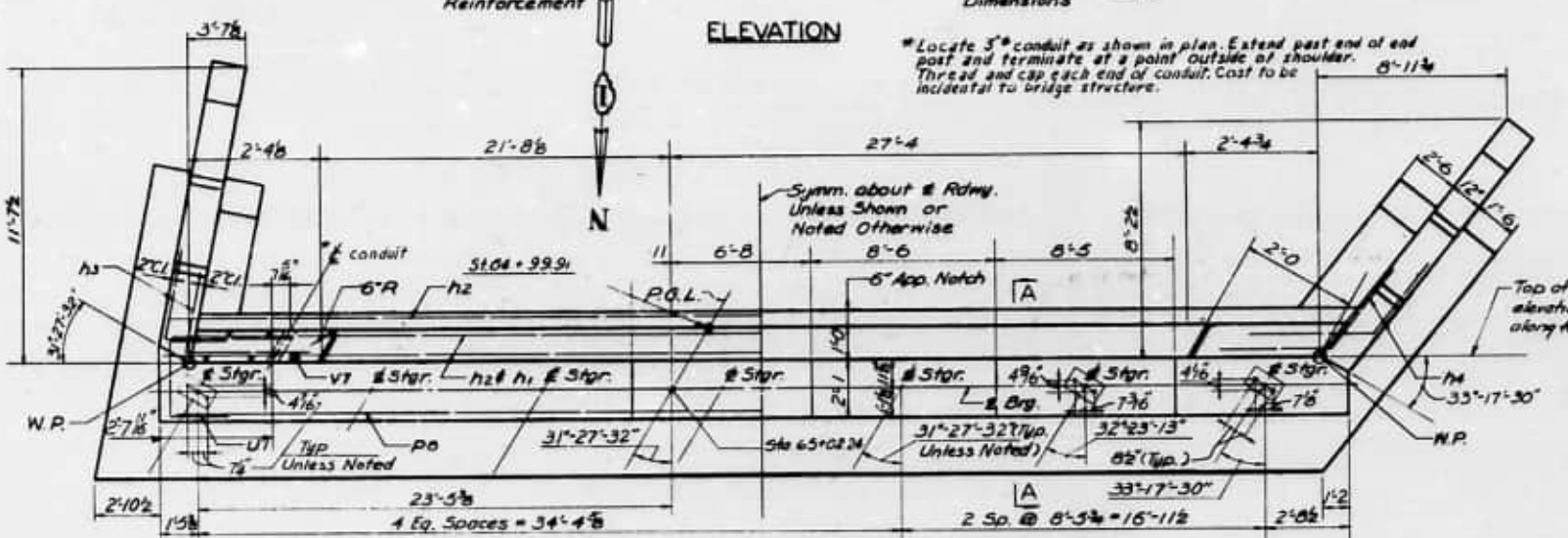
BILL OF REINFORCEMENT

Bar	No.	Size	Length	Shape
h1	5	#4	24'-10"	
h2	20	#4	28'-1"	
h3	14	#5	5'-0"	
h4	14	#5	5'-0"	
n1	28	#5	5'-7"	
n2	56	#5	3'-3"	
t1	17	#5	4'-6"	
t2	56	#5	5'-0"	
u1	6	#5	5'-9"	
v6	50	#4	2'-9"	
v7	110	#4	6'-8"	
p8	12	#7	28'-4"	
s4	56	#4	6'-3"	
w1	10	#5	10'-4"	
w2	12	#5	28'-11"	

BILL OF MATERIAL

Item	Unit	Quan.
Class X Concrete	Cu. Yds	73.9
Reinforcement Bars	Lbs	3,960
Steel Piles (108 Piles)	Lin. Ft.	252
Test File (108 Piles)	Each	1

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.



PILE DATA

Type: Steel 10 BP 42
Capacity: Refusal
Est. Length: 18 Feet
No. Req'd: 13+1 Test Pile

S ABUTMENT
F A ROUTE 61 OVER F A ROUTE 80

F A ROUTE 61 STA 65+24.16
SECTION 10 - STR. 5
PROJECT
WILL COUNTY
Date: Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

DESIGNED	G. F. & J. P. M.
CHECKED	J. P. S. & L. D.
DRAWN	J. P. M.
CHECKED	L. D.

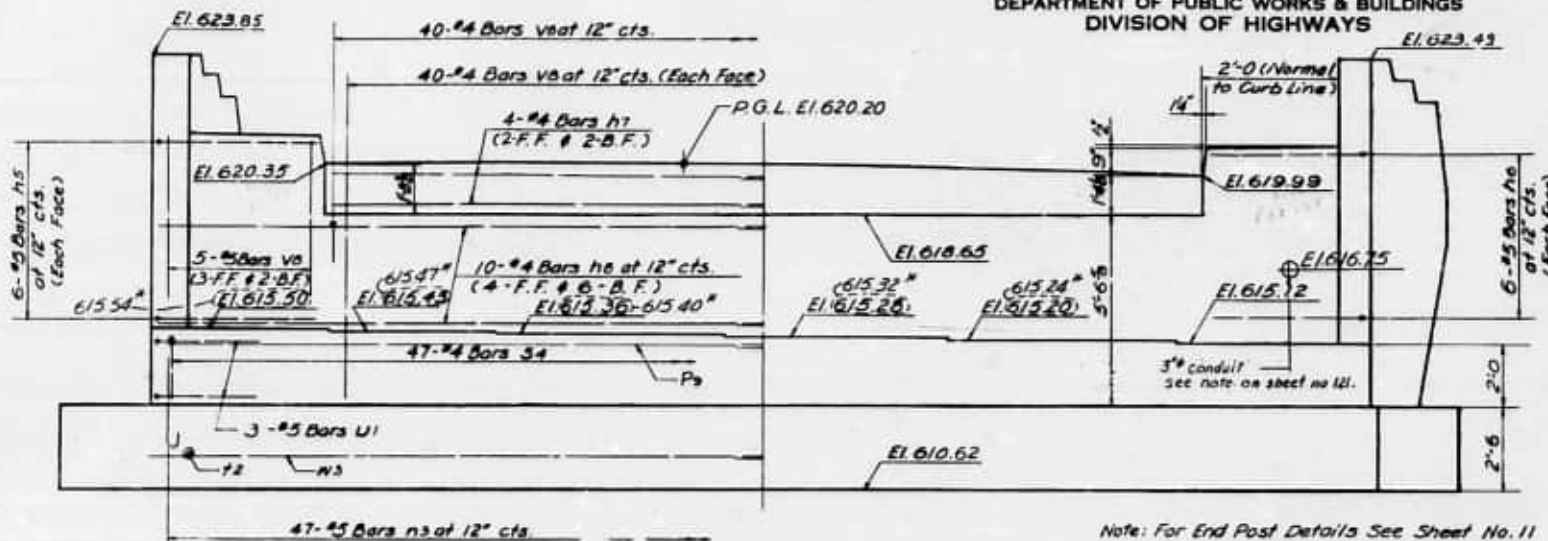
* Rev. Abut. Elevations 4-28-66 L.W.
As Awarded

11-20-64 J.P.J. Rev. class & conc. from 73.7 to 73.9 cu. yds.

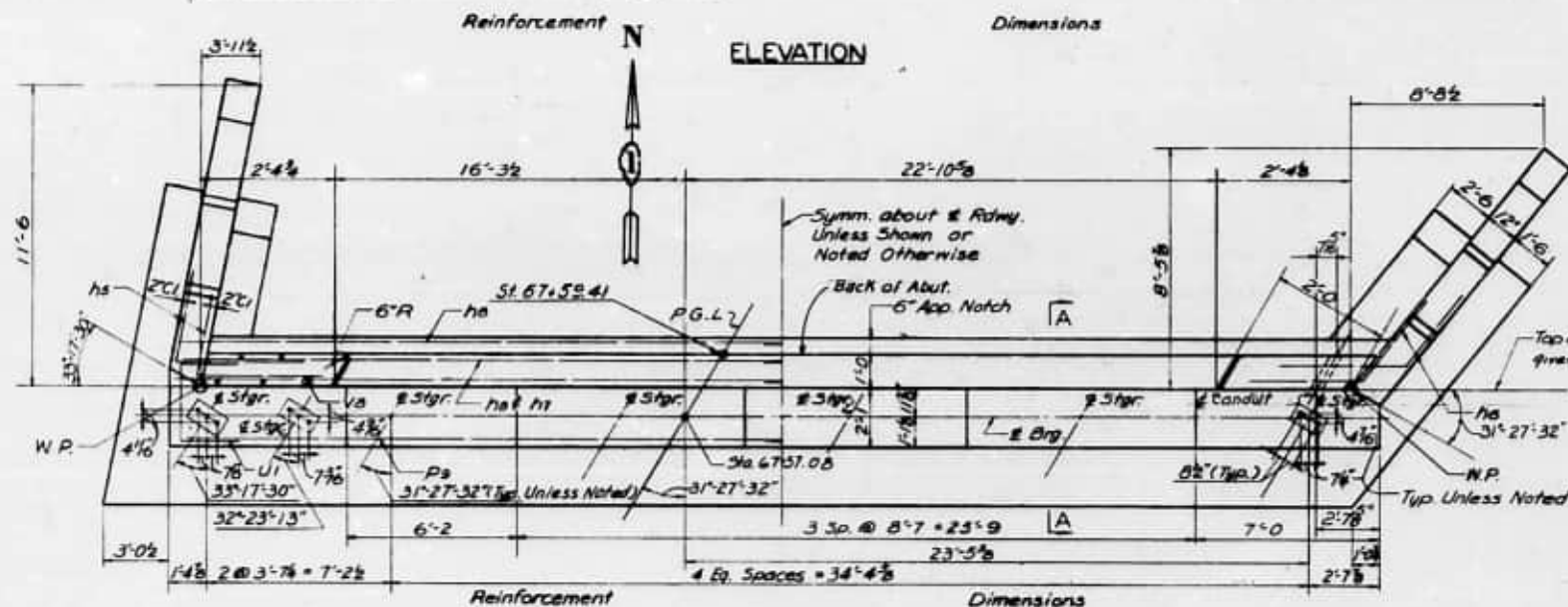


STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

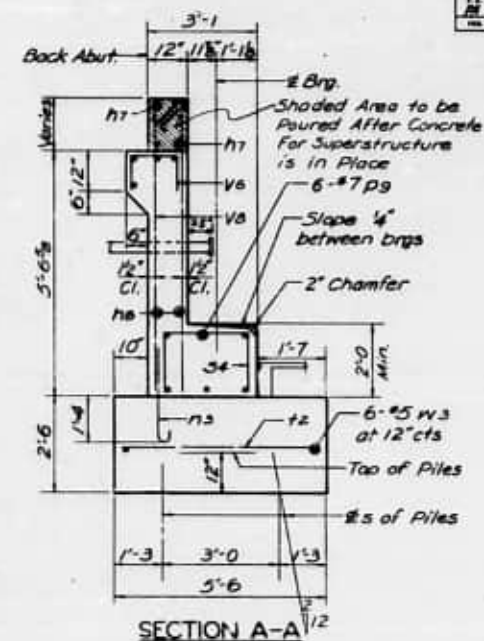
PROJECT NO.	SECTION	SHEET NO.	SHEET TOTAL
11-20-64	11-20-64	122	122
11-20-64	11-20-64	122	122



Note: For End Post Details See Sheet No. 11



FOOTING PLAN



BILL OF REINFORCEMENT

Bar No.	Size	Length	Shape
h5	12	5'-0"	L
h6	12	5'-0"	L
h7	8	19'-11"	—
h8	20	23'-2"	—
n1	20	5'-7"	C
n3	47	3'-3"	C
ps	12	23'-5"	—
sa	47	6'-3"	—
t1	17	4'-6"	—
t2	47	5'-0"	—
u1	6	5'-9"	—
v6	40	2'-9"	—
v8	90	6'-7"	—
w1	10	10'-4"	—
w3	12	24'-1"	—

BILL OF MATERIAL

Item	Unit	Quan.
Class X Concrete	Cu Yds	60.5
Reinforcement Bars	Lbs	3440
Steel Piles (10BP42)	Lin. Ft.	266
Test Pile (St. 10BP42)	Each	1

Note: Bill of Material includes Reinforcement and Class X Concrete for End Posts.

For All Steel Piles Encasement Details See Sheet No. 121.

PILE DATA

Type: Steel 10 BP42
Capacity: Refusal
Est. Length: 19 Feet
No. Req'd: 15+1 Test Pile

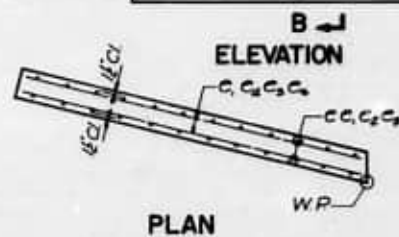
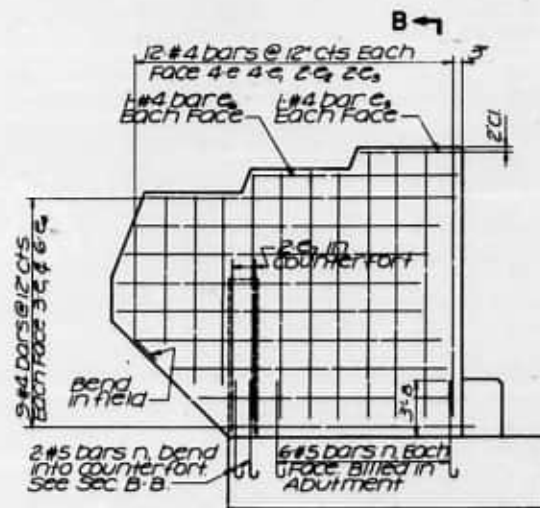
N. ABUTMENT
FA ROUTE 61 OVER FAI ROUTE 80
FA ROUTE 61 STA. 66+24.16
SECTION 10 - STR. 5
WILL COUNTY
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

DESIGNED	G. F. & P. R. M.
CHECKED	J. P. S. & L. D.
DRAWN	P. P. H.
CHECKED	L. D.

11-20-64 H. J. Rev. class X concrete from 60.3 to 60.5 cu yds.

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

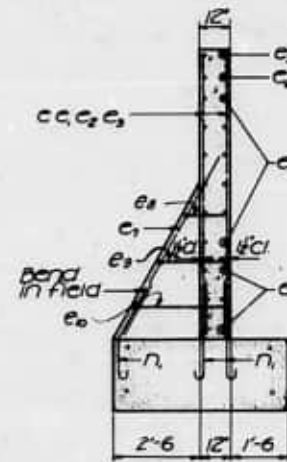
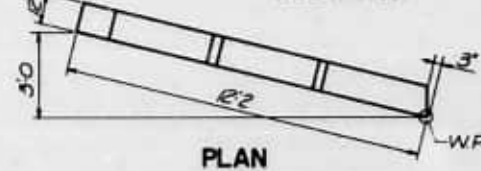
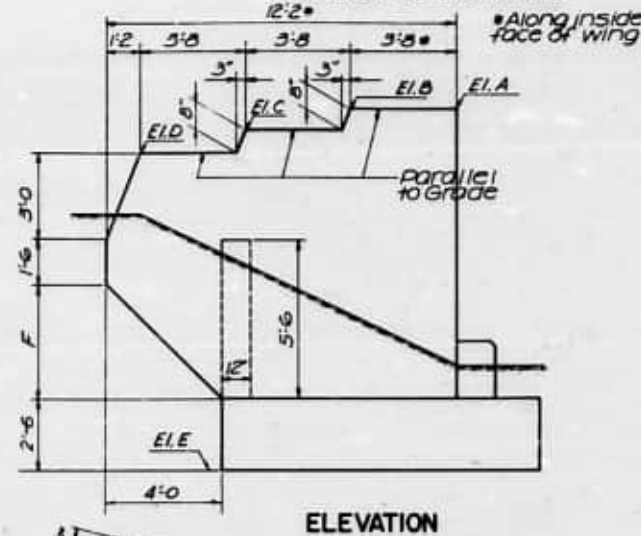
DATE	BY	CHKD	APPD	SHEET NO.
7/26/61	J.J.H.	L.D.	W.L.	191
11/1/61	J.J.H.	L.D.	W.L.	123



END POST ELEVATIONS

Elev.	S. Abut.		N. Abut.	
	S. W.	S. E.	N. W.	N. E.
A	619.69	620.94	623.85	623.49
B	619.57	620.87	623.85	623.49
C	618.80	620.02	623.18	622.81
D	618.04	619.39	622.51	622.13
E	606.70	606.70	610.50	610.50
F	4'-9 1/2"	5'-9 1/2"	5'-0 1/2"	4'-7 1/2"

DESIGNED	J. J. H.
CHECKED	L. D.
DRAWN	SEE J. J. H.
CHECKED	L. D.



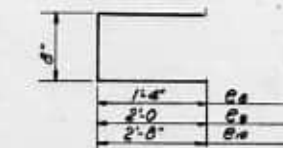
SECTION B-B

Note: See Abut. Dwg. for Fly Reinforcement.

ONE END POST
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
C	8	#4	9'-3"	—
C1	14	#4	8'-6"	—
C2	4	#4	8'-6"	—
C3	4	#4	5'-0"	—
C4	12	#4	10'-6"	—
C5	2	#4	3'-6"	—
C6	2	#4	7'-0"	—
C7	2	#5	7'-0"	—
C8	4	#4	3'-2"	—
C9	4	#4	4'-6"	—
C10	4	#4	5'-10"	—
Reinforcement Bars	105		280	
Class X Concrete				
South Abut. 2 Posts Cx Yds.			8.8	
North Abut. 2 Posts Cx Yds.			8.7	

*Included in Quantity on Sheets 9 and 10



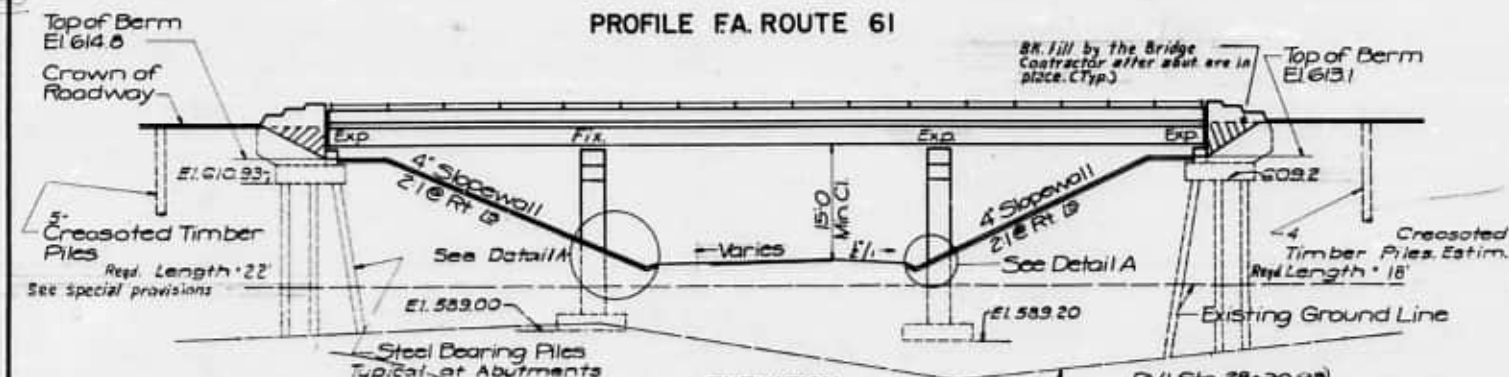
BARS C, C2, C3, C4

ABUTMENT DETAILS
FA ROUTE 61 OVER FA1 ROUTE 80
FA ROUTE 61 STA. 66+24.16
FA ROUTE 81 PROJECT
SECTION 10-5TH.5 WILL COUNTY
Date: No. Scale Date: Nov. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

11-20-61 J.J.H. Rev. class x con. S. abut. from B.C. to B.B. (N. abut. from B.5 to B.7 cxd.)

Bench Mark No 463 Top of "O" in "open"
fire hydrant NE corner Hunter
St & Jasper St El 599.66
No Existing Structure

PROFILE FA ROUTE 61



Note:
Approach slab to
be constructed in
accordance with
Method II of Illinois
Standard No 1909-6

ELEVATION

PROFILE RAMP DB

STATION 69+15.64
BUILT 196 BY
STATE OF ILLINOIS
FA. PROJ. SEC. 10H-1
LOADING HS-20

See Standard E113-1
LETTERING FOR NAME PLATE

DETAIL A
Note:
Welded wire fabric in slope-
wall shall be 6"x6" mesh #4
wires, 58 lbs/100'.
Cost of welded wire fabric
shall be included in cost of
4" Slope wall.
Cost of cutoff wall shall be
included in cost of 4" Slope wall.

BILL OF MATERIALS

Sec. 10 C Str. 6

Item	Unit	Super	Sub	Total
Class A Excavation for Structures	Cu Yd	120		120
Rock Excavation for Structures	Cu Yd	6		6
Class X Concrete	Cu Yd	105.7	170.0	275.7
Furnishing & Erecting Structural Steel	Lb.	63,900		63,900
Reinforcement Bars	Lb.	24,370	13,250	37,620
Run Crea Piles 20.1 to 38 feet	Lin Ft	110		110
Driving Timber Piles	Lin Ft	182		182
Furnishing Steel Piles 10BP42	Lin Ft	490		490
Test Pile Steel 10BP42	Each	2		2
Driving Steel Piles	Lin Ft	490		490
Name Plates	Each	1		1
Slope wall 4"	Sq Yd	291		291
Aluminum Handrail	Lin Ft	229		229
Protective Coat	Sq Yd	436		436
Furnishing Creosoted Piles up to 20ft	Lin Ft	72		72
Bridge Seat Sealant	Jump Seal	0.1		0.1

* Applied at abutments

Prepared and Recommended by
Blauvelt Engineering Co.
Structural Engineer #81-2251

DATE	REVISION	BY	APP'D	REMARKS
11/1/81	1	WLL	197	12.5

SHEET NO. 1
10 SHEETS

GENERAL NOTES

STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS FOR
STRUCTURAL STEEL, A.S.T.M. DESIGNATION A36.

KEYS SHALL BE 3/4" # WITH 13/16" # OPEN HOLES UNLESS NOTED.

CLASS X CONCRETE SHALL BE USED THROUGHOUT. COARSE AGGREGATE
USED IN PARAPETS AND END PORTS SHALL BE FREE OF CHERT, FLINT,
LIMONITE, LIGNITE AND SOFT SANDSTONE.

THE CONCRETE FLOOR SLAB SHALL BE FINISHED IN ACCORDANCE WITH
ARTICLE 51.19 OF THE STANDARD SPECIFICATIONS.

ALL WELDING SHALL COMPLY WITH THE REQUIREMENTS OF THE STANDARD
SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, OF THE
AMERICAN WELDING SOCIETY.

ALL ROCKERS, BOLTERS, BEARING PLATES, LEAD PLATES, PINTLES,
AND ANCHOR BOLTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH
ARTICLE 51.15 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN
QUANTITY OF STRUCTURAL STEEL.

ANCHOR BOLTS SHALL BE SET BEFORE CONNECTING DIAPHRAGMS OVER
SUPPORT. SPAC REINFORCING TO NEAR ANCHOR BOLTS.

EXPANSION GUARDS AND PLATES SHALL BE FABRICATED AND ERECTED
IN ACCORDANCE WITH ARTICLE 51.13 (d) OF THE STANDARD SPECIFICATIONS
AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL.

EXCEPT AS OTHERWISE PROVIDED, ALL STRUCTURAL STEEL SHALL
RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF
ALUMINUM PAINT. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE
STANDARD SPECIFICATIONS.

ALL SURFACES OF EXPANSION GUARDS INACCESSIBLE AFTER ERECTION
SHALL BE GIVEN TWO SHOP COATS OF RED LEAD PAINT. THE 3/4" # WELDED
STUDS SHALL NOT BE PAINTED.

THE CONTRACTOR SHALL DRIVE TWO (2) TEST PILES IN PERMANENT
LOCATIONS AS SHOWN ON THE PLANS, BEFORE ORDERING REMAINDER OF PILES.

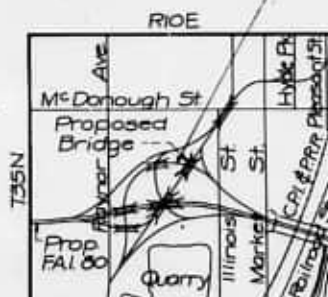
NO ROCK LARGER THAN 3" SHALL BE PLACED IN FILLS IN THE AREA
WHERE PILES ARE TO BE DRIVEN.

Equation for bearing of structure in the
embedment shall not be classified.

ALL STEEL BEARING PILES ARE TO BE DRIVEN TO REFUSAL.

PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING THE CONCRETE
FLOOR.

Note: This route has been selected as a 15'-0"
vertical clearance route.



• Denotes boring location

DESIGNED	RDL
CHECKED	M. E. JTL
DRAWN	SEF
CHECKED	M. E. JTL

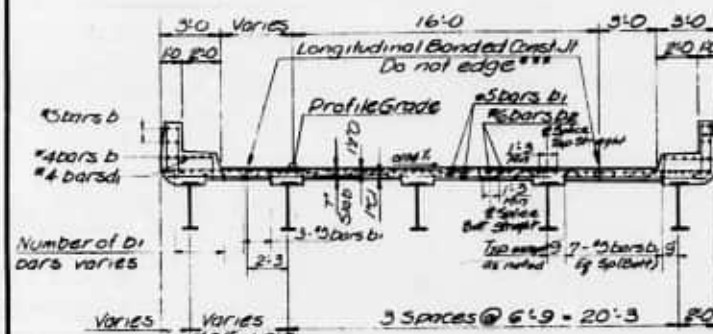
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	BY	CHECKED	SCALE	SHEET NO.
11-11-61	JTL	AME	1/4" = 1'-0"	197
				126

SHEET NO. 2
18 SHEETS

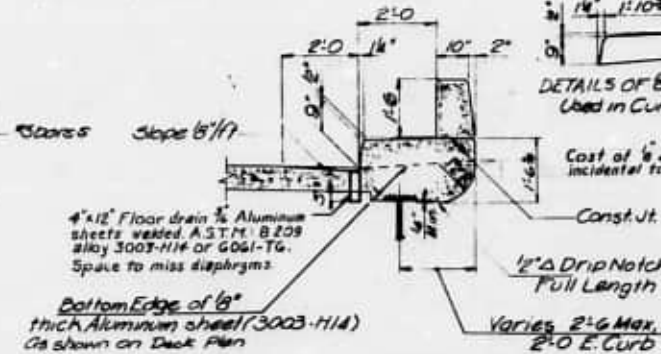
After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on the D.L. Deflection Diagram. From these elevations subtract the increment of deflections for these points determined from the D.L. Deflection Diagram. The elevations so obtained subtracted from the theoretical grade elevations minus floor thickness equals fillet heights above top of beams.

METHOD OF DETERMINING FILLET HEIGHT 'f'

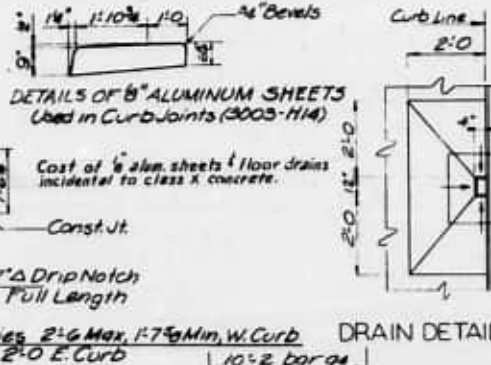


CROSS-SECTION

*** No longitudinal reinforcing to pass through bonded curb.



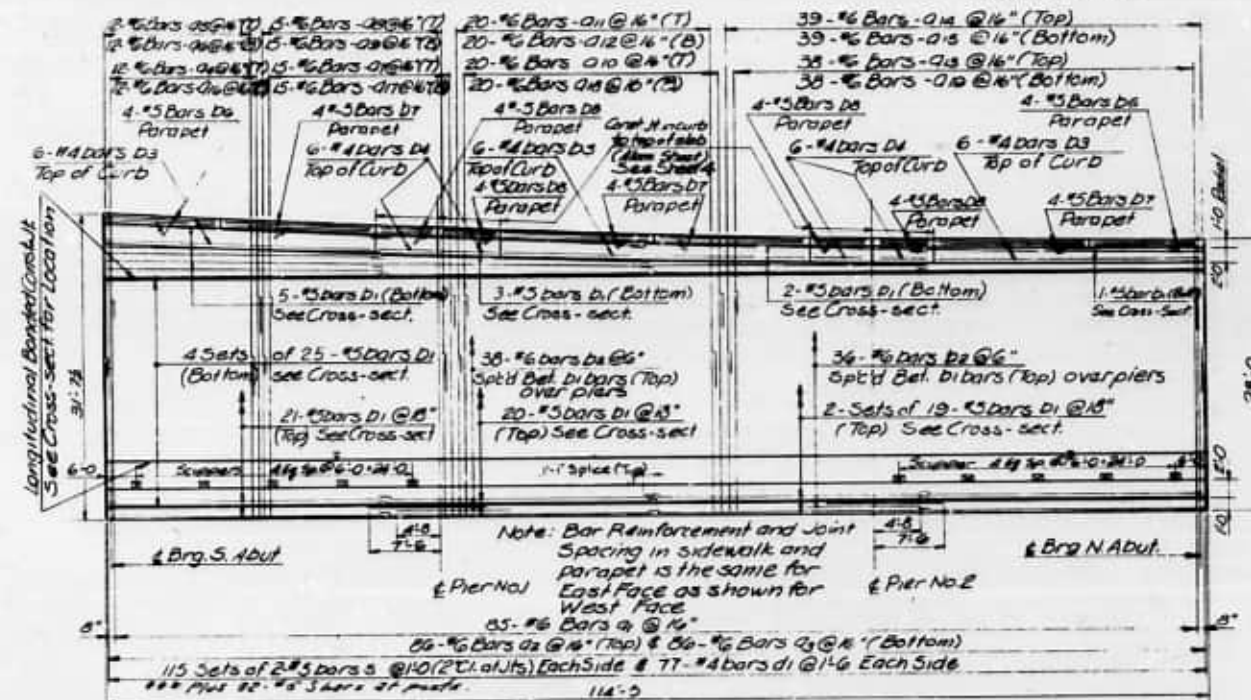
CURB DETAIL



DRAIN DETAIL

BILL OF REINFORCEMENT

Bar	No	Size	Length	Shad
01	35	6	24'-7"	
02	06	6	12'-7"	
03	06	6	16'-0"	
04	12	6	10'-2"	
05	12	6	20'-0"	
06	12	6	16'-7"	
07	15	6	9'-3"	
08	15	6	19'-1"	
09	15	6	13'-8"	
10	20	6	8'-4"	
11	20	6	18'-2"	
12	20	6	14'-9"	
13	38	6	7'-5"	
14	38	6	17'-3"	
15	38	6	13'-10"	
16	12	6	12'-9"	
17	15	6	11'-10"	
18	20	6	10'-11"	
19	38	6	10'-10"	
d1	140	5	20'-4"	
d2	74	6	12'-2"	
d3	24	4	28'-1"	
d4	48	4	6'-1"	
d5	12	4	31'-10"	
d6	16	5	12'-0"	
d7	32	5	13'-9"	
d8	32	5	6'-1"	
s1	144	4	3'-9"	
s2	524	5	2'-10"	
s3	3	4	3'-7"	



PLAN

*** Place 2" x 5" Slabs on inside face of each rail post.

ELEVATIONS - TOP OF SLAB** Elevations are not adjusted for Dead Load Deflection.

Sta.	1	2	3	4	5	6	7	8	9	10	11
A	619.71	619.60	619.49	619.31	619.17	619.03	618.87	618.63	618.43	618.26	618.00
B	619.64	619.54	619.42	619.25	619.12	618.97	618.82	618.58	618.41	618.23	617.96
C	619.57	619.47	619.33	619.19	619.03	618.90	618.75	618.51	618.34	618.15	617.89
D	619.50	619.40	619.28	619.11	618.95	618.83	618.68	618.44	618.27	618.08	617.82
E	619.43	619.33	619.21	619.04	618.91	618.76	618.61	618.37	618.20	618.01	617.75

See Sheet No. 3 for Location of Points
** Where curb is over stringer, Elevation shown is that of the projection of top of slab along its cross slope.

DESIGNED	AME
CHECKED	JTL
DRAWN	AME
CHECKED	JTL

Clean "X" Concrete	Cu. Yd.	105.7
Reinforcement Bars	Lbs.	24,970
Structural Steel	Lbs.	48900

*Structural Steel includes weight of Rockers, Bolsters, Bearing Plates, Lead Plates, Pintles and Anchor Bolts.
Estimated Weight = 48900

BILL OF MATERIALS

Cost of furnishing and installing drains and aluminum sheets shall be incidental to the contract.

SLAB PLAN & CROSS-SECTION

FA ROUTE 61 OVER RAMP DB

FA RTE. 61 STA. 69+15.64
PROJECT
SECTION 10 (STR. 61) WILL COUNTY
Scale NO Scale Date Nov 30, 1961
BLAUVELT ENGINEERING CO.
240 INSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

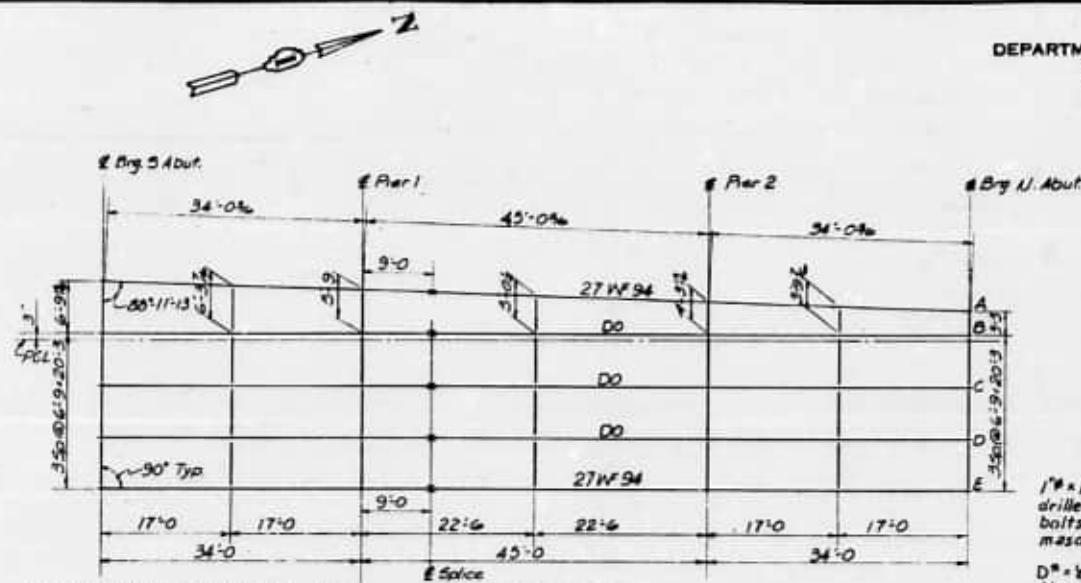
12-20-61 Provided 2" x 5" Slabs on inside face of each rail post.
Revised Quantity of Reinforcement from 24,970 to 26,870 Lbs. E.C.



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

PROJECT	SECTION	DATE	BY	CHECKED	APPROVED
FA. ROUTE 61	STA. 69+13.64	197	197	197	197

SHEET NO. 3
10 SHEETS



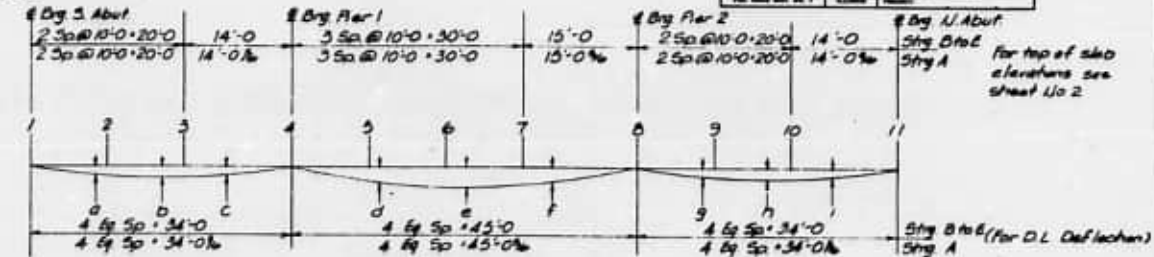
FRAMING PLAN

Angles shall be held securely in place while pouring concrete with 3/4" bolts in 3/4" holes set on gage line @ 12" c/c. All bolts shall be turned, sawed or clipped flush with back of angles after forms are removed.

Note:
All End Diaphragms Type D-1
All Intermediate Diaphragms Type D-2

NOTES
1/2" x 12" Anchor Bolts to be grouted into drilled holes after beams are in place, or bolts at fixed pier may be built into the masonry.

D* = 1/100 ft. of expan. for every 15° below the normal temp. of 50°F.
D** = 1/100 ft. of expan. for every 15° above the normal temp. of 50°F.

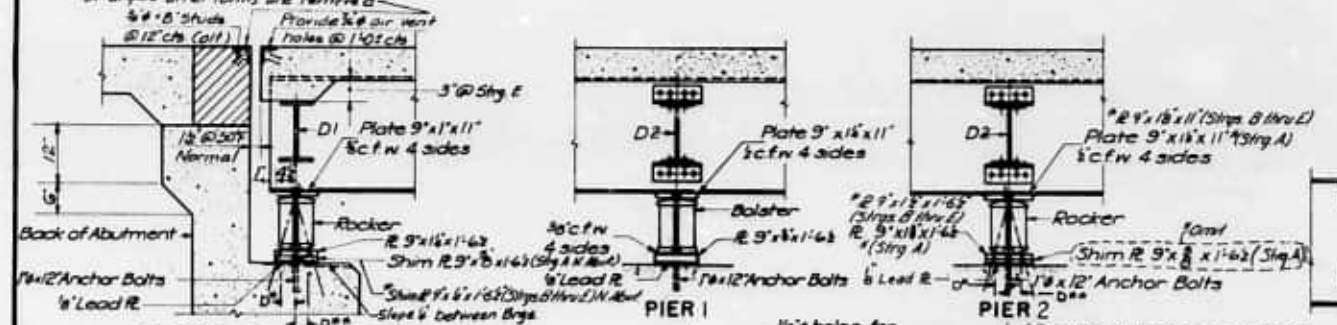


DEAD LOAD DEFLECTION DIAGRAM

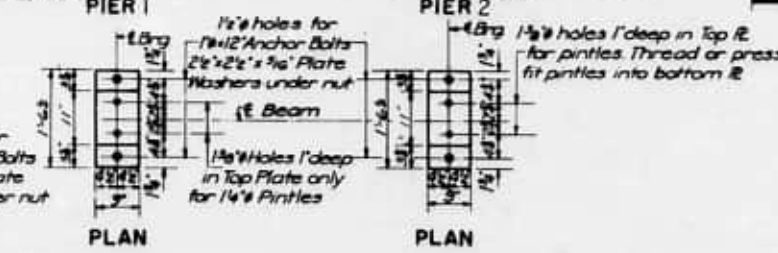
DEAD LOAD DEFLECTIONS* (inches)

Strg.	Pt.	A	B	C	D	E	F	G	H	I
A & E	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2
B to D	1/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2

* Due to the weight of slab only



SECTION AT ABUTMENT

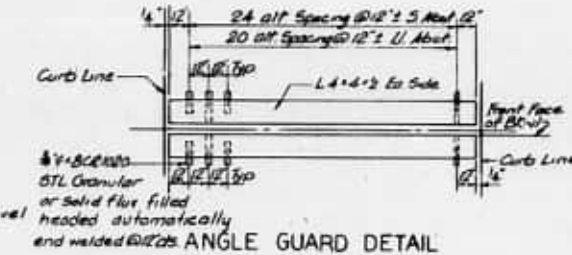


PIER 1

PIER 2

DIAPHRAGM D2
Required 20

DIAPHRAGM D1
Required 0



AS AWARDED
TOP OF BEAM ELEVATIONS*

Strg.	A	B	C	D	E
A	619.08	618.68	618.55	618.00	617.37
B	619.01	618.62	618.50	617.95	617.33
C	618.94	618.55	618.43	617.88	617.26
D	618.87	618.48	618.36	617.81	617.19
E	618.80	618.41	618.29	617.74	617.12

* These elevations are of top of top flange of stringers exclusive of deflection, and splice plates and are for fabrication of structural steel.

AS BUILT

Strg.	A	B	C	D	E
A	618.57	617.95	617.37		
B	618.52	617.92	617.35		
C	618.45	617.85	617.28		
D	618.38	617.78	617.21		
E	618.31	617.71	617.14		

FRAMING PLAN & STEEL DETAILS
FA. ROUTE 61 OVER RAMP DB

FA. ROUTE 61 STA. 69+13.64
PROJECT
SECTION 51.6
WILL COUNTY
DATE: JAN. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

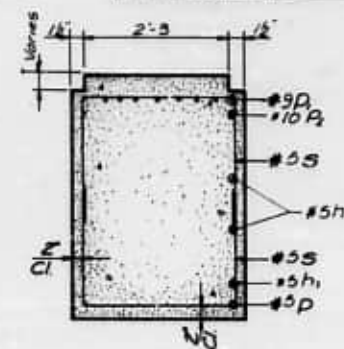
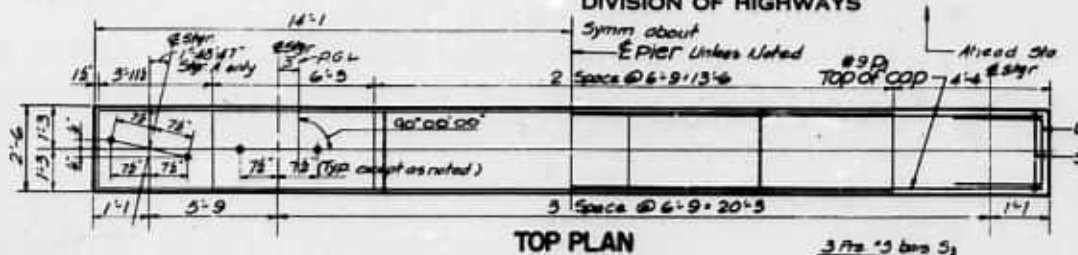
DESIGNED	G.F.
CHECKED	L.D.
DRAWN	T.L.L.
CHECKED	J.T.L.

As Built: Awarded Top of Beam Elevations of Splice, Pier #2 & T1 Rest Added Shim Plates for Strgs B thru E, at N. Abut. Revised Top of Bottom Brg. Rs. for Strgs B thru E and revised Shim R for Strg A at Pier #2 April 12, 1961 L.W.

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

DATE	BY	CHKD	APPD	REV
10/1/77	JTL	LD		
10/1/77	JTL	LD		

SHEET NO. 5
103 SHEETS



SECTION A-A

PIER I
BILL OF MATERIAL

BAR NO.	SIZE	LENGTH	QUANTITY
n	4	27'10"	—
n	2	19'7"	—
n	30	11'4"	—
n	32	4'10"	—
p	8	27'10"	—
p	9	27'10"	—
p	2	27'10"	—
s	12	5'8"	—
s	16	6'8"	—
s	24	7'2"	—
s	14	6'6"	—
s	14	9'0"	—
t	18	7'6"	—
u	6	10'2"	—
v	24	22'5"	—
v	8	22'1"	—
w	6	16'9"	—
Class X concrete cu yd 45.9			
Reinf. bars lbs 4,150			
Rock Excavation cu yd 6			
Class A Exc. cu yd 63			

Maximum rock pressure = 5.2 Tons/sq. ft.

Footings shall extend 1' into sound rock.

A & B DIMENSIONS

BAR	A	B
S	2'-2"	1'-9"
S	2'-2"	2'-3"
S	2'-2"	2'-6"
S	2'-2"	2'-2"
S	2'-2"	3'-5"

s BARS

u BARS

n BARS

Note:
All edges shall have
standing & chamfers
except footings.

END VIEW

ELEVATION

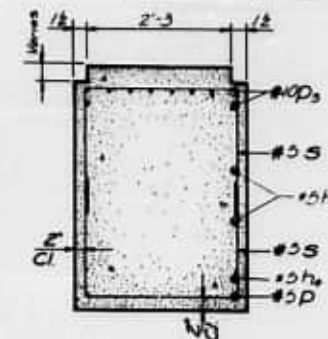
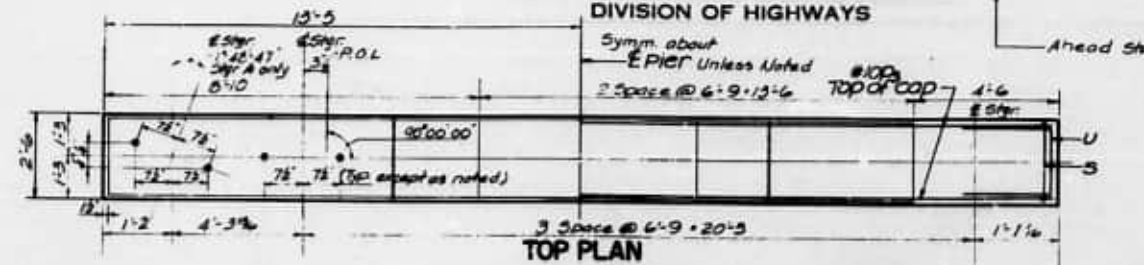
FOOTING PLAN

DESIGNED	GF
CHECKED	LD
DRAWN	T.L.L.
CHECKED	JTL

PIER I
FA. ROUTE 61 OVER RAMP DB
FA. ROUTE 61 STA. 69+15.64
SECTION (ST-6)
Scale NONE
Date Nov 30, 1964
PROJECT
WILL COUNTY
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

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

DATE	NO.	BY	CHKD.	DATE	NO.	BY	CHKD.	SHEET NO. 6	10 SHEETS
11/17/61	117	130							



SECTION A-A

PIER 2
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
P1	4	#5	26'-6"	—
P2	2	#5	18'-0"	—
P3	30	#5	10'-6"	—
P4	22	#6	4'-5"	—
P5	8	#5	8'-9"	—
P6	10	#10	26'-6"	—
S1	12	#5	5'-8"	□
S2	14	#5	6'-6"	□
S3	12	#5	6'-4"	□
S4	30	#5	7'-0"	□
S5	14	#5	8'-0"	□
T	14	#7	7'-6"	—
U	6	#6	10'-2"	—
V1	10	#6	21'-0"	—
V2	12	#6	21'-9"	—
W	6	#5	12'-9"	—
Class X concrete	cu yd	41.6		
Reinf. Bars	lbs	3,470		
Class A Exc.	cu yd	57		

Maximum soil bearing pressure = 3 Tons/sq ft

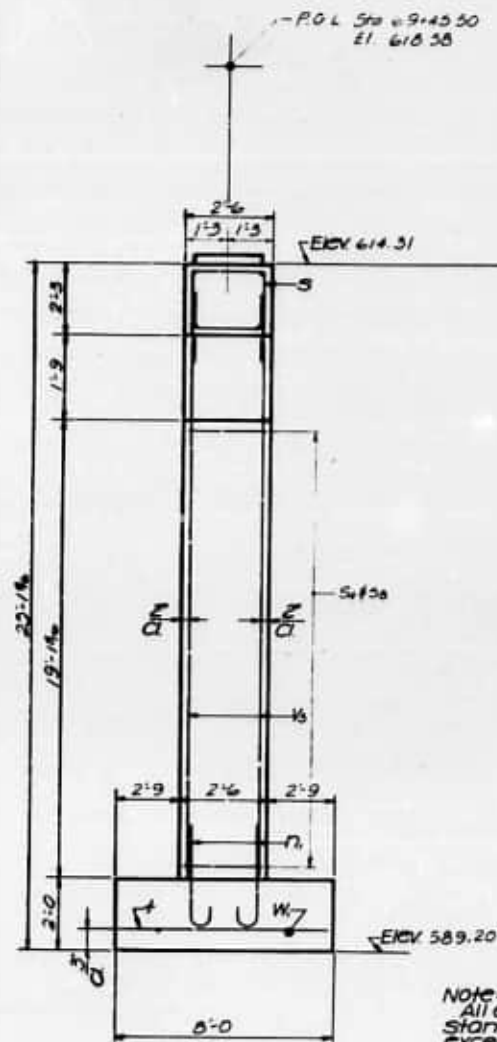
s BARS

A & B DIMENSIONS

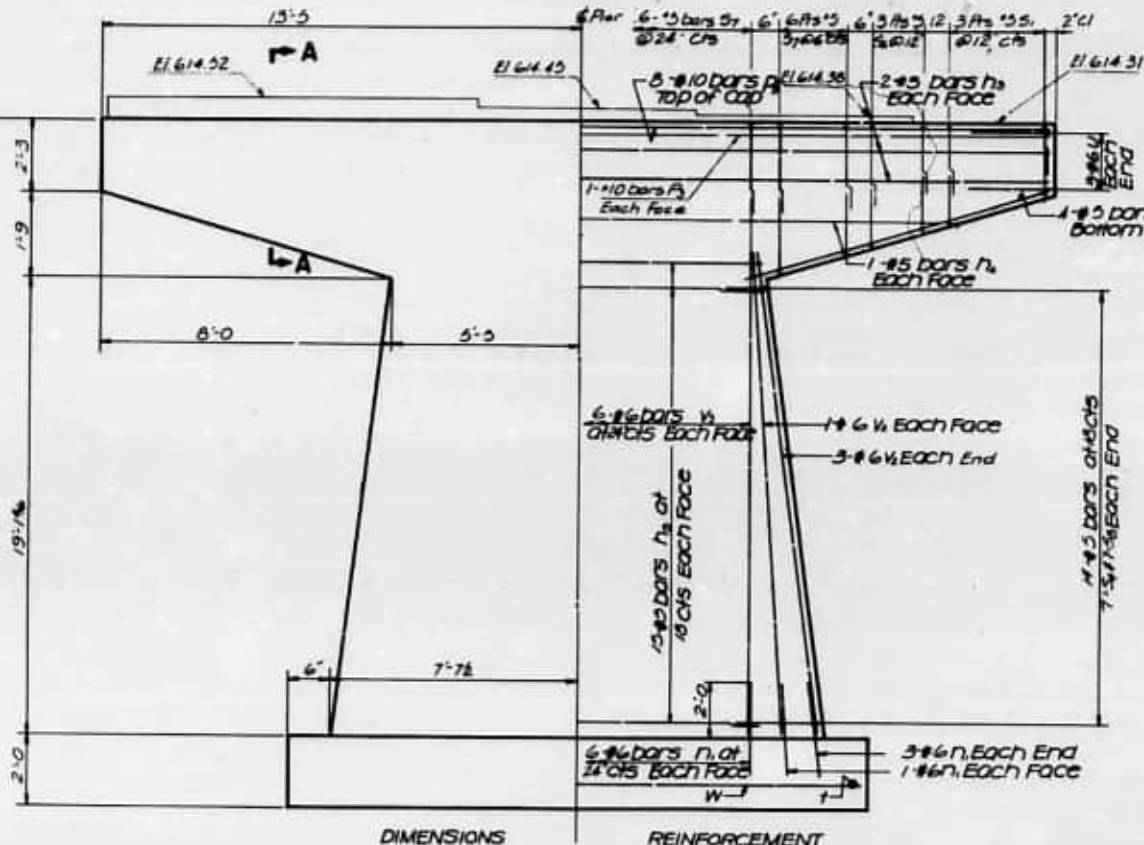
BAR	A	B
S1	2'-2"	1'-9"
S2	2'-2"	2'-2"
S3	2'-2"	2'-1"
S4	2'-2"	2'-5"
S5	2'-2"	3'-3"

u BARS

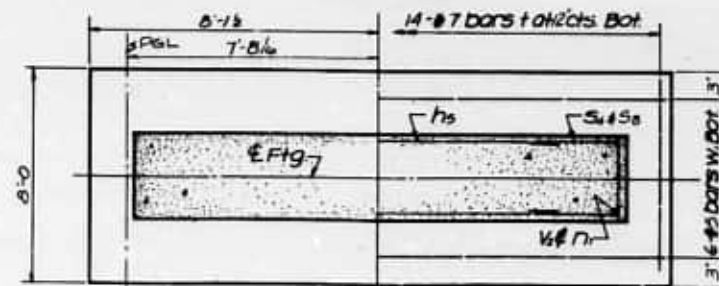
n BARS



END VIEW



ELEVATION



FOOTING PLAN

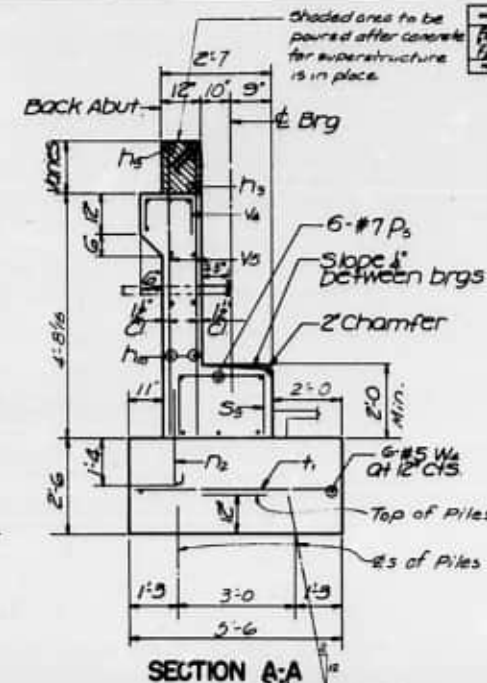
DESIGNED	GF
CHECKED	LD
DRAWN	T.L.L.
CHECKED	JTL

PIER 2
F.A. ROUTE 61 OVER RAMP DB

F.A. ROUTE 61 STA. 69+15.64
PROJECT
SECTION 10
WILL COUNTY
Scale NONE Date Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

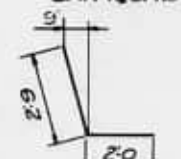




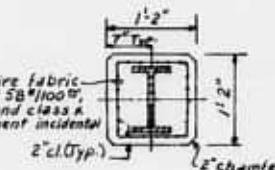
Bar	No	Size	Length	Shape
M ₉	4	#4	23-4	—
M ₁₀	10	#4	31-4	—
M ₈	24	#5	4-9	✓
M ₃	32	#5	3-9	—
M ₃	28	#5	3-11	—
D ₃	6	#7	31-4	—
S ₃	32	#4	5-11	□
T ₁	33	#5	5-0	—
T ₂	24	#5	4-6	—
U ₁	6	#5	5-2	□
V ₄	26	#4	2-9	□
V ₅	62	#4	5-9	—
W ₂	10	#5	10-8	—
W ₄	6	#5	32-3	—

Item	Unit	Quantity
Class X Concrete	Cu Yds	43.1
Reinforcement Bars	Lbs	2616
Steel Piles (100 Piles)	Lin Ft	25
Test Pile 5" Dia	Each	1

Note: Bill of Material includes
Reinforcement and Class X
concrete for End Posts.



*4 gage welded wire fabric
C16 mesh weight 58#/100²
Cost of fabric and class
concrete encasement incident
to steel piles



BAR h_0

	5_2	5_1	1_4
	$1:10$	$1:6$	9_1
$2:3$	5_2		
$2:2$	1_1		
$1:3$	1_4		

BARS $s, u, \& v,$



Type- steel BBP 30
Capacity- Refusal
Est Length- 25 Feet
No Read- 9+1 Test pile

F.A. ROUTE 61 STA. 69+15.64
FA ROUTE 61 PROJECT
SECTION 10 WILL COUNTY
(1st 6)
Scale NONE Date Nov 30, 1964

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

DESIGNED	T. L. L.
CHECKED	J. J. H.
DRAWN	T. L. L.
CHECKED	J. T. L.

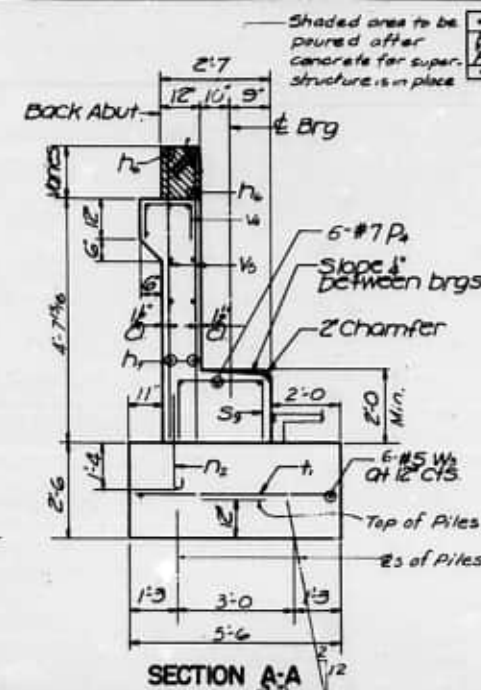
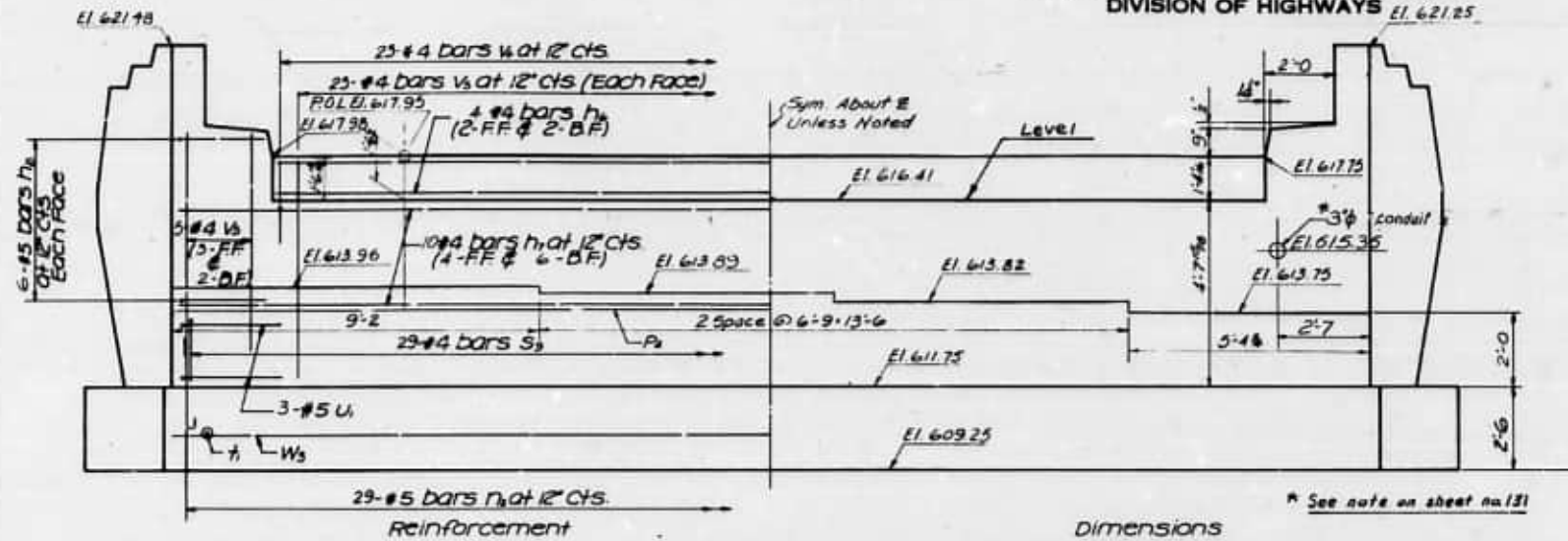
FOOTING PLAN *Note: ? Denotes battered pile*

Revised 11-25-64 JTL C/200 x conc from 42.9 to 43.1 cu yds @ 7' plus alt. 10' 0" to 5' 0"



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

SHEET NO. 8
10 SHEETS



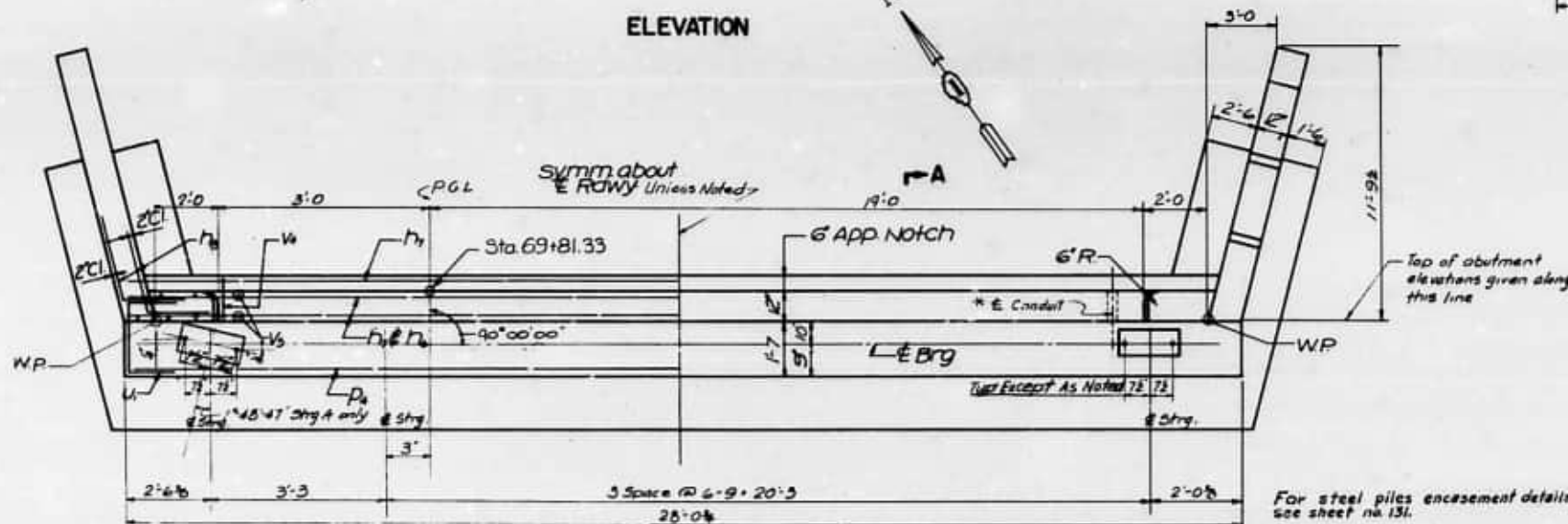
NORTH ABUTMENT
BAR LIST

Bar	No	Size	Lnth	Shape
n ₁	4	#4	21'-8"	—
n ₂	10	#4	27'-8"	—
n ₃	24	#5	4'-9"	L
n ₄	29	#5	3'-3"	—
n ₅	28	#5	3'-11"	—
n ₆	6	#7	27'-8"	—
s ₁	29	#4	5'-11"	—
t ₁	30	#5	5'-0"	—
t ₂	24	#5	4'-6"	—
u ₁	6	#5	5'-2"	—
v ₁	23	#4	2'-9"	—
v ₂	56	#4	5'-9"	—
w ₁	10	#5	10'-8"	—
w ₂	6	#5	28'-10"	—

NORTH ABUTMENT
BILL OF MATERIAL

Item	Unit	Quan.
Class X Concrete	cuyds	39.4
Reinforcement bars	lbs	2440
Steel Piles (B.B.P.36)	Ln.Ft.	240
TEST PILES (B.B.P.36)	Each	1

Note: Bill of Material includes reinforcement and class X concrete for end posts.



BAR n₂ & n₃

BAR h₂

BARS s₁, u₁ & v₁

PILE DATA

Type: Steel B.B.P.36
Capacity: Refusal
Est. Length: 24 Feet
No. Piles: 3+1 Test Pile

NORTH ABUTMENT
F.A. ROUTE 61 OVER RAMP DB

F.A. ROUTE 61 STA. 69+15.64
SECTION 10 (ST. 6)
Scale: NONE
Date: Nov. 30, 1961

BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
ROXBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

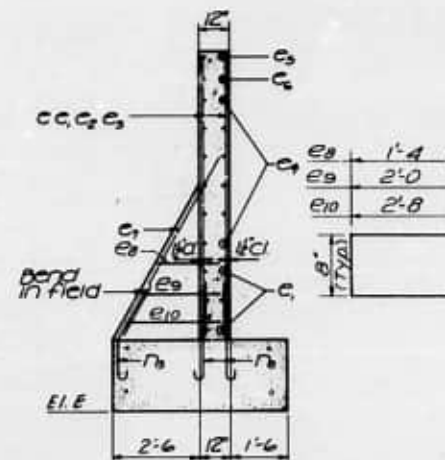
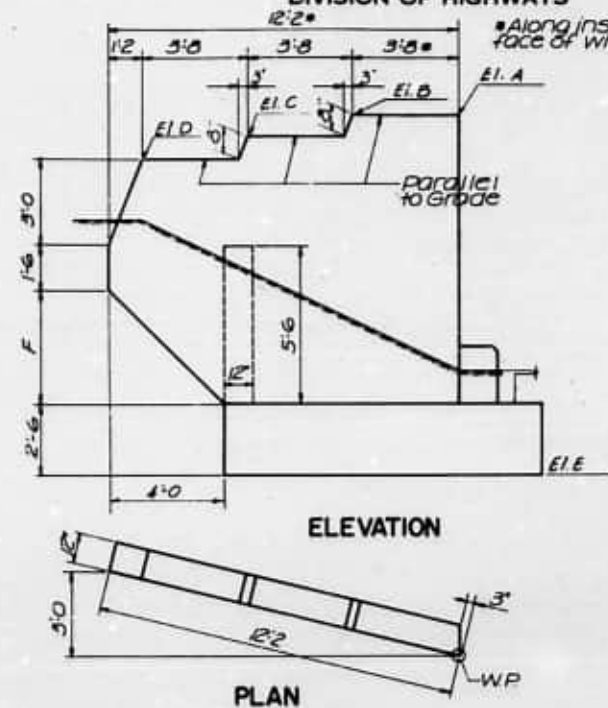
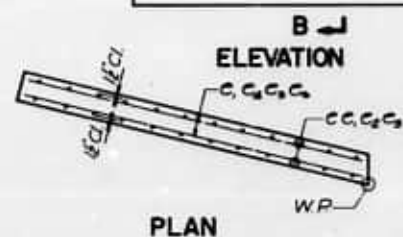
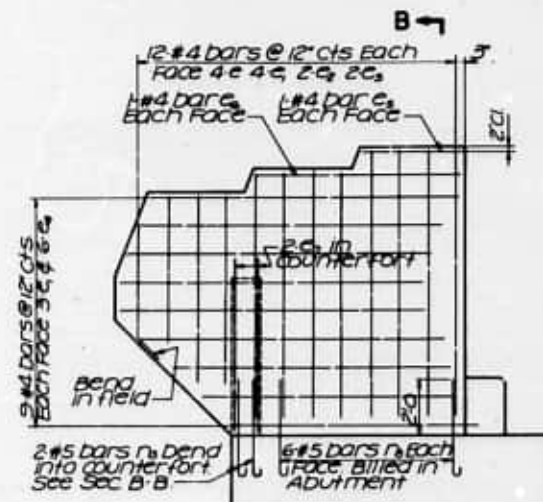
DESIGNED	T. L. L.
CHECKED	J. J. H.
DRAWN	T. L. L.
CHECKED	J. T. L.

FOOTING PLAN

11-25-64 J.T.L. Rev. class x conc. from 39.2 to 39.4 T piles all 29' 0" to all 29' 6"

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

PROJECT NO.	SECTION	PROJECT	DATE	SHEET NO.
100	10	WILL	197	133
SHEET NO. 3 10 SHEETS				



ONE END POST
BILL OF MATERIAL

Bar No	Size	Lght	Shape
C	#4	9'-1"	—
C ₁	#4	8'-4"	—
C ₂	#4	6'-4"	—
C ₃	#4	4'-10"	—
C ₄	#4	10'-6"	—
C ₅	#4	3'-6"	—
C ₆	#4	7'-0"	—
C ₇	#5	7'-0"	—
C ₈	#4	3'-2"	—
C ₉	#4	4'-6"	—
C ₁₀	#4	5'-10"	—

* Reinforcement lbs 280
* Class X Concrete
* N Abut (2 End Posts) Cu Yds 7.8
* S Abut (2 End Posts) Cu Yds 8.0
* Included in Quantity on
Sheets 7 & 8

Abut	Pt	A	B	C	D	E	F
N	11	621.81	621.84	622.60	621.56	610.93	4'-0"
S	11	622.85	622.89	622.36	621.73	610.93	3'-3"
N	11	621.48	621.41	620.68	618.95	609.25	3'-8"
S	11	621.25	621.18	620.43	618.72	609.25	3'-5"

TABLE OF WINGWALL ELEVATIONS & DIMENSIONS

DESIGNED	T. L. L.
CHECKED	J. T. L.
DRAWN	T. L. L.
CHECKED	J. T. L.

ABUTMENT DETAILS
FA. ROUTE 61 OVER RAMP DB
FA. ROUTE 61 STA. 69+15.64
PROJECT
SECTION 10
WILL COUNTY
Scale NONE
Date Nov 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURN, N. Y. CRYSTAL LAKE, ILL.

11-25-64 J.M.J. Rev. class x conc. S abut from 7.8 to 8.0 cu yds, N abut from 7.6 to 7.8 cu yds. Rev. at end post elev.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

BENCH MARK TWO #17A

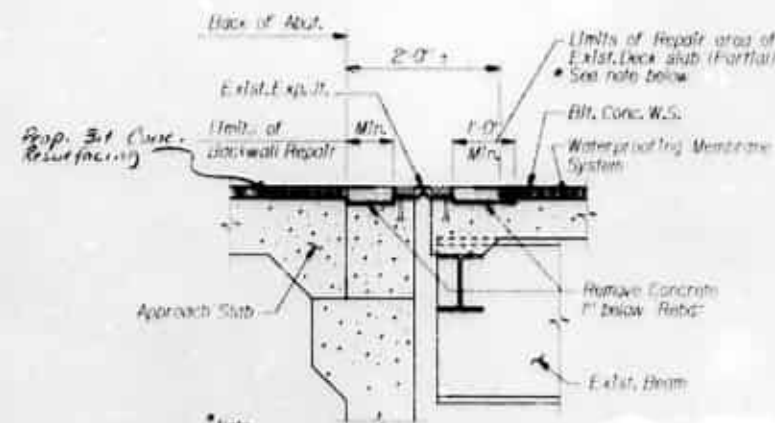
1. S.E. Corner of Concrete Slab of Overhead Sign at Midway between I-80 and I-55, E. of Exit Ramp at Center St.

EXISTING PG FAI-80

EXISTING STRUCTURE DATA

Superstructure consists of four concrete piers and two concrete abutments. The bridge is a continuous span bridge with two spans. The bridge is located on the east side of Center St. and is a part of the I-80 interchange. The bridge is a concrete structure and is in good condition. The bridge is a part of the I-80 interchange and is a concrete structure. The bridge is a part of the I-80 interchange and is a concrete structure.

ELEVATION



SECTION A-A SECTION B-B (SIM.)

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.
2. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

DESIGN SPECIFICATIONS

AASHTO 1989 Standard Specifications For Highway Bridges, 1990 and 1991 Interims, Standard Specifications for Road and Bridge Construction, State of Illinois adopted July 01, 1988 and Supplemental Specifications and Recurring Special Provisions adopted December 2, 1991

DESIGN STRESSES

Reinforced Concrete $f'_c = 3,500$ psi
Reinforcement $f_y = 60,000$ psi

CONSTRUCTION NOTES:

1. Remove Bituminous Concrete surface and Waterproofing Membrane System from the bridge deck.
2. Repair spalled and unsound areas of concrete in the bridge deck and elsewhere as shown on the plans.
3. Install a Waterproofing Membrane System on the bridge deck and provide Bituminous Concrete surface for the bridge deck.
4. Extend existing drain pipes to discharge below the bottom flange of beam (if Required).
5. All construction on the bridges shall be completed in two construction stages. See sheet 2 of 2 for details.

SEC 99 (2&3) RS, 99-2 (B, VB, HB-4)
& 99-3HB (1&2) BR
D-91-362-89

TOTAL BILL OF MATERIALS

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL
Bituminous Concrete Removal (Deck)	Sq.Yd.	1100		
Deck Slab Repair (Partial)	Sq.Yd.	50		
Deck Slab Repair (Full Depth, Type 1)	Sq.Yd.	5		
Deck Slab Repair (Full Depth, Type 2)	Sq.Yd.	5		
Waterproofing Membrane System	Sq.Yd.	1100		
Bituminous Concrete Surface Course Mix 1, Class 1, Type 1	Ton	200		
Repair Concrete Structures	Sq.Ft.	5		
Protective Deck	Sq.Yd.	5		
Deck Drain Extension	Each	10		

- See Special Provisions
- Quantities are estimates, locations and depths of repair areas are to be determined in the field and approved by the Engineer

SECTION C-C

Note:
Existing Rebar shall be straightened, cleaned and incorporated into new concrete.

INDEX OF SHEETS

- | Sheet No. | Title |
|-----------|----------------------------|
| 1. | GENERAL PLAN AND ELEVATION |
| 2. | Stage Construction Details |

FAI-80 CURVE DATA (ARC DEF)

P.I. STA 371+20.58
 Δ 40° 30' 00"
D 3° 00' 00"
R 1909.86'
T 704.88'
L 1350.00'
E 125.82'

P.C. STA 364+16.00
P.T. STA 377+66.00



LOCATION MAP

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
FAI-80 OVER CENTER ST. RAMP AB
F.A. ROUTE I-80 SECTION
STA. 363+67.23
STRUCTURE NO. 099-0052 & 099-0053
WILL COUNTY

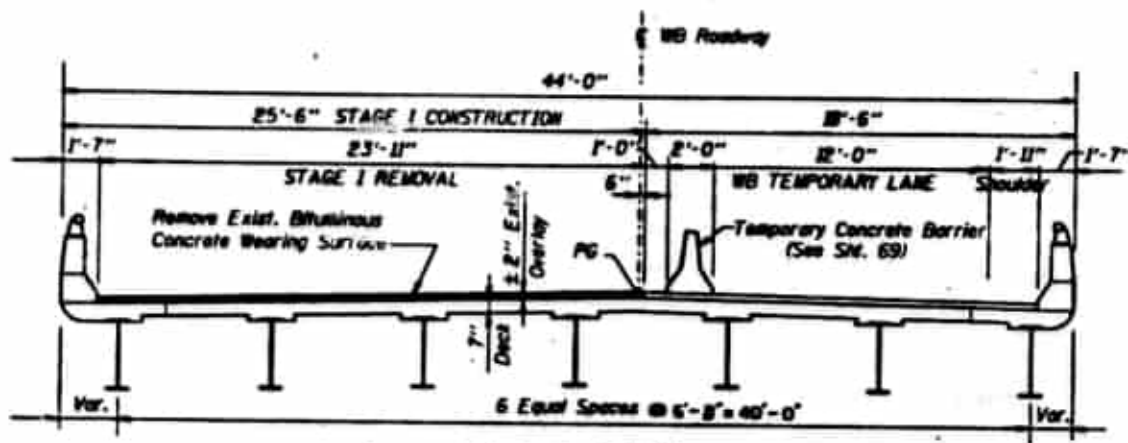
Designed by
FLUOR DANIEL

Job No. 336700
Drawn: C.M./D.R.
Checked: P.D.P.
Reviewed: J.M.
Scale: NONE
Date: 1/1/91

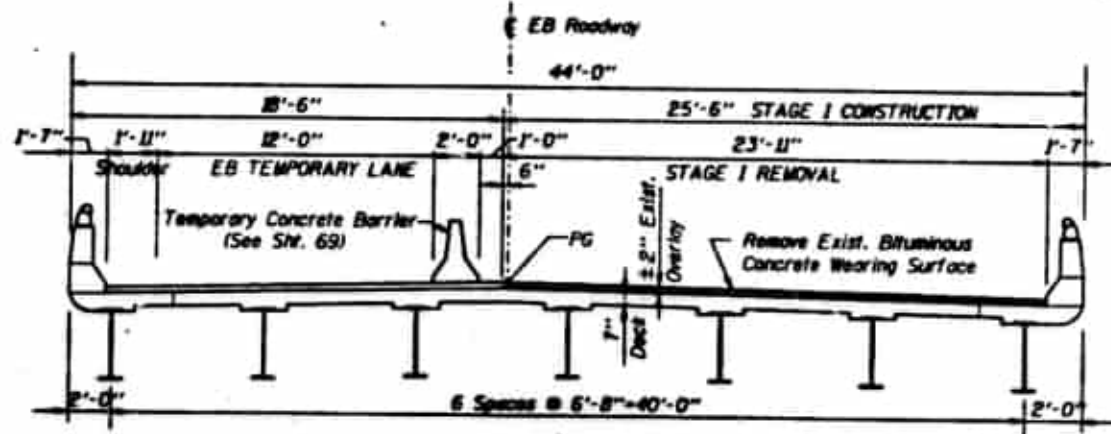
* SEC 99 (28.3) RS: 99-2 (B, VB, HB-4)
 & 99-34B (B2) BR
 D-91-362-89

NO.	DESCRIPTION	DATE
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2	REVISION	
3	REVISION	
4	REVISION	
5	REVISION	

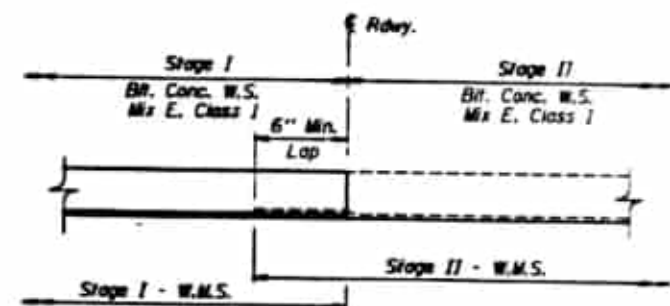
Sheet No. 2 of 2



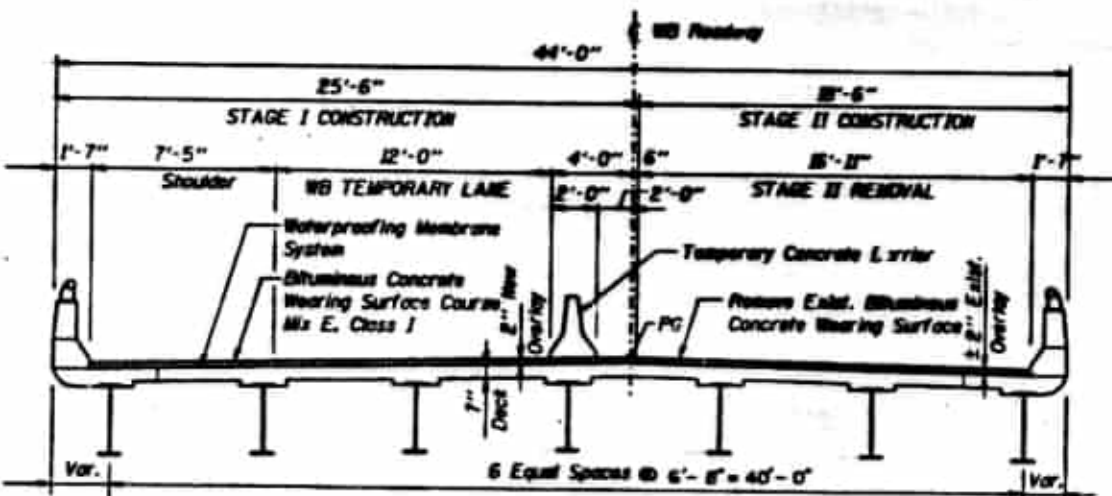
STAGE I (W.B.)



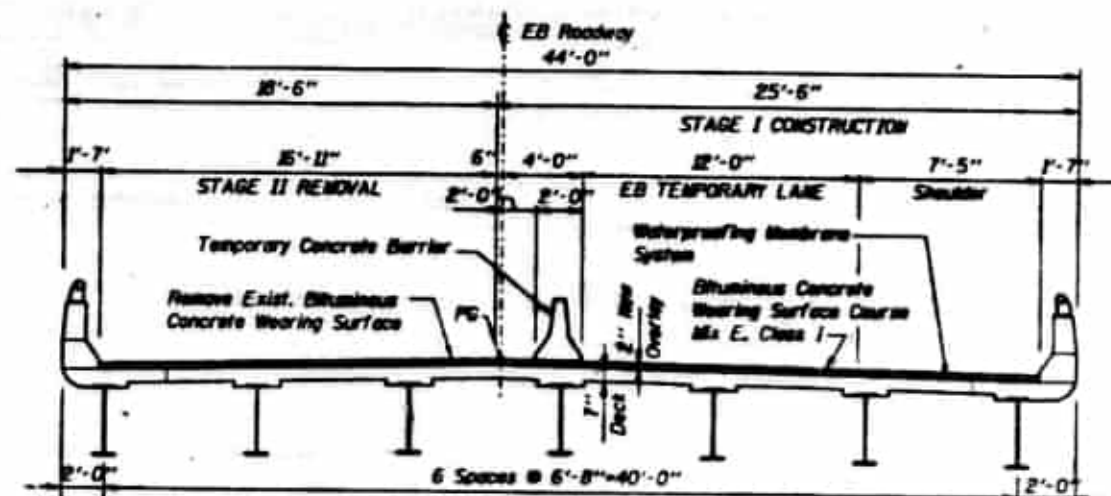
STAGE I (E.B.)



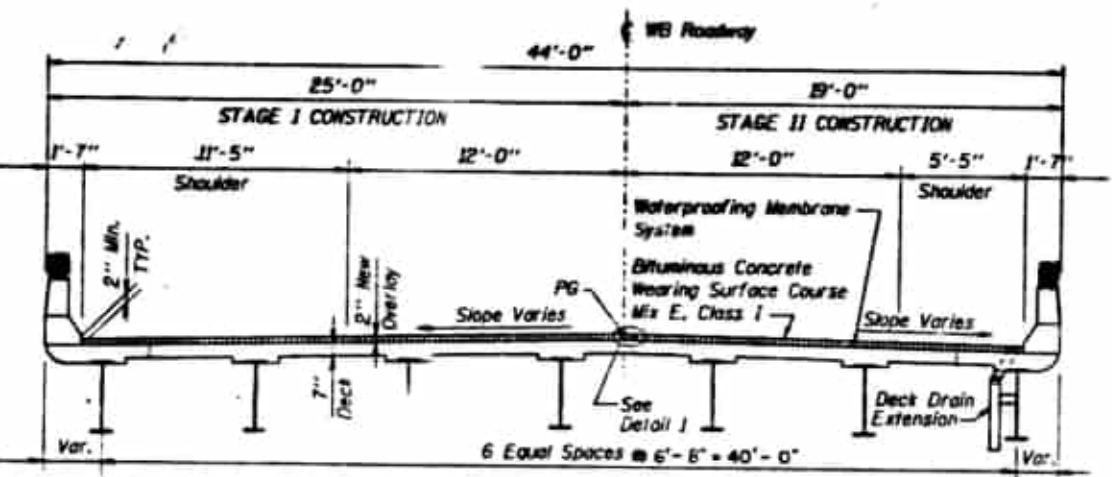
DETAIL 1
 DETAIL 2 (SIMILAR)



STAGE II (W.B.)

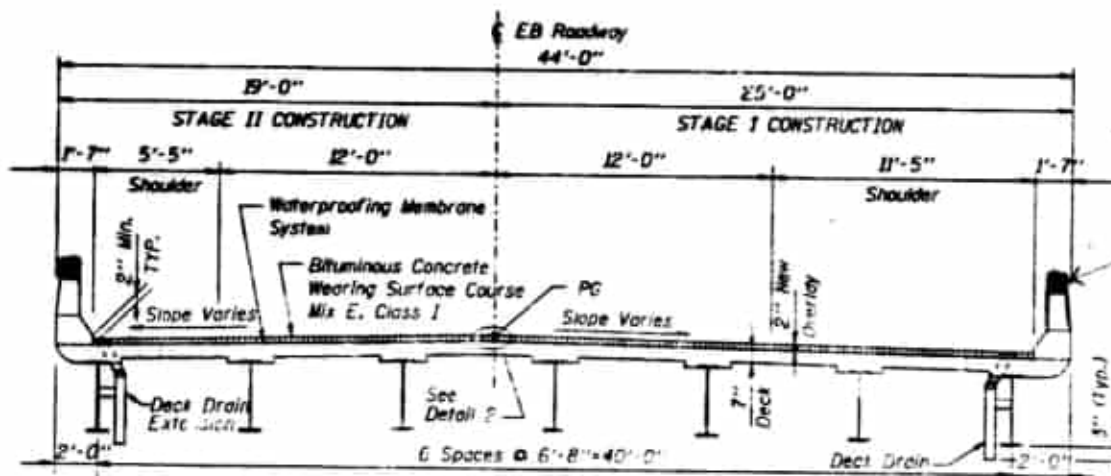


STAGE II (E.B.)



FINAL CROSS SECTION (W.B.)

WEST BOUND ROAD - STAGE CONSTRUCTION



FINAL CROSS SECTION (E.B.)

EAST BOUND ROAD - STAGE CONSTRUCTION

LEGEND:
 Removal of Exist. Bit. Concrete Wearing Surface
 New Bituminous Concrete Wearing Surface

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
 FAI-80 OVER CENTER ST. RA
 F.A. ROUTE I-80 SECTION
 STA. 363+00.00
 STRUCTURE NO. 099-0052 & 099-0053
 WILL COUNTY

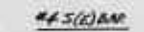
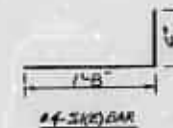
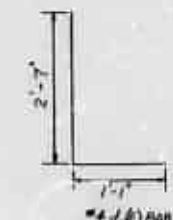
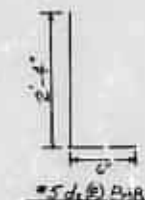
DESIGNED BY
FLUOR DANIEL

DATE: 10/1/88
 DRAWN: C.M./D.P.
 CHECKED: P.P.
 APPROVED: J.B.
 SCALE: 1" = 10'-0"

* FBI HQ
 * 99-380-35

Leu and No

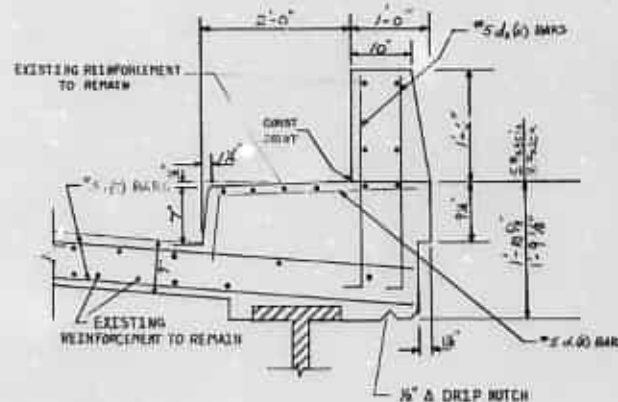
- ① $\frac{1}{2} \times 6'$ JOIST WITH $\frac{1}{2} \times 6'$ JOIST - FREEDOM JOINT ISAL 1/8" (SEE INT 4)
- ② $\frac{1}{2} \times 7'$ JOIST WITH $\frac{1}{2} \times 6'$ JOIST - FREEDOM JOINT ISAL 2" (SEE INT 4)
- ③ BRIDGE DECK - CONCRETE CURBWAY OPTION (SEE INT SPEC. CHECK INT. INT 17)
- ④ CURB CONC. JOINT CASE 11X.X, CL 5, 7, 1



RNA	Size	Abundance	Genotype	Score
16S	15	2.6	28-0°	—
16S	15	0.8	2°-0°	7
16S	14	2.4	33-3°	7
16S	14	6.8	2°-2°	7
16S	14	0.4	23-3°	7
16S	14	8	3°-8°	7
16S	15	2.4	2°-10°	7

ADINK BARS (K) - 105B LB²
CONCRETE ADHESION - T & C.T.
CANC. SUPERSTRENGTH - T & C.T.
PLASTER & BRICK JOINT STRENGTH - 1750 LB²
MASONRY JOINT STRENGTH - 30 MP²
MASONRY JOINT STRENGTH - 2 1/2" - 30 MP²

(5) Indicates entry coated



NO/1: SEE PLAN SH# 6 FOR SEC. A & B-B
SEE SHEET 11 OF 16 FOR CONCRETE REMOVAL
AT JOINT REPAIRS.

CURE DETAIL

NOTE: EXIST CONC. RESIST SHALL REMAIN IN PLACE/PAINT.
 REMOVE THE CONC. RESISTING AREAS SHALL BE REMOVED.
 THE REMOVAL OF EXIST. CONC. AREAS AND SPALLS AT THE STAIRWAY JOINT, E. ABUT, SHALL BE INCIDENTS TO CONC. REPAIRS.

ALL RESIST BARS IN THE CONC. REMOVAL AREAS
 SPECIFIED TO REMAIN IN PLACE SHALL BE THOROUGHLY COATED
 W/ OIL COAT. & REPT. PRIOR TO POURING NEW CONCRETE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DEFECT: FIBER AND EXPANSION
 JOINT RECONSTRUCTION
 FAISB, SEC. 49-3HB-3E, WILL CO

SCALE:	VERT.	DRAWN BY
	HORIZ.	
DATE		CHECKED BY

TAMERAN