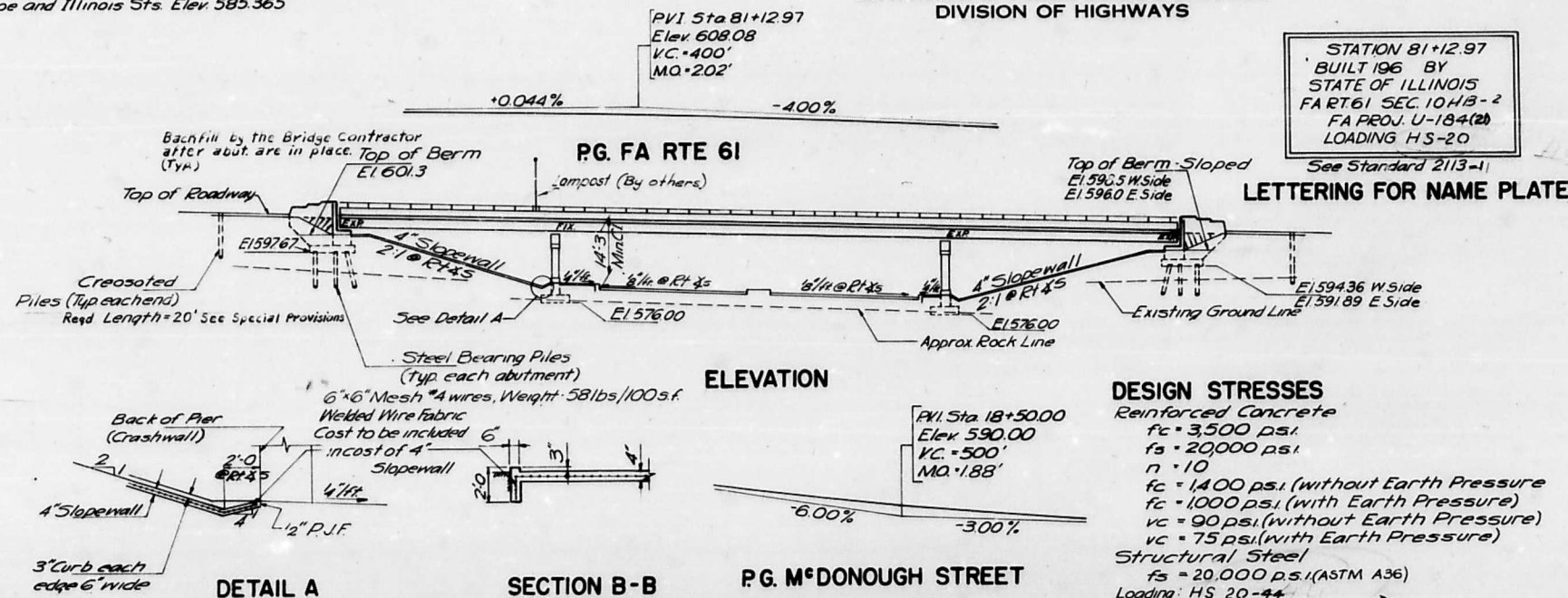


Bench Mark No. 468 Top of Ring (for chains to caps on outlets) on Fire Hydrant S. Side Hyd. NW Corner Munroe and Illinois Sts. Elev. 585.365

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. /
184	10	WILL.	197	135	135 / 197
PROJECT	U-184 (21)				



GENERAL NOTES

Class X 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(d) of the Standard Specifications and are 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.

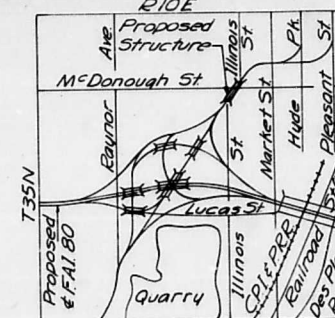
All surfaces of expansion guards inaccessible after erection shall be given two shop coats of red lead paint. The $\frac{3}{4}$ " ϕ welded studs shall not be painted.

The Contractor shall drive two (2) test piles in permanent locations as directed by the Engineer, before ordering remainder of piles. One each of either one of the East and West Abutments.

No rock larger than 3" shall be placed in fills in the area where piles are to be driven.

All steel bearing piles are to be driven to refusal. Rivets shall be $\frac{3}{4}$ " ϕ with $\frac{1}{8}$ " ϕ open holes unless noted.

Structural steel shall conform to the specifications for structural steel, ASTM - A36.



LOCATION PLAN

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

**GENERAL PLAN & ELEVATION
FA 61 OVER
M'DONOUGH STREET**

FA 61 STA. 81+12.97
SECTION 10
Scale: NO SCALE

PROJECT U-184 (21)
WILL COUNTY
Date: NOV. 30, 1961

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

TOTAL BILL OF MATERIALS

Sec. 10 Str. 7

Item	Unit	Super	Sub	Total
Class A Excavation for Structures	Cu Yd	—	361	361
Rock Excavation for Structures	Cu Yd	—	27	27
Class X Concrete	Cu Yd	436.0	594.8	1030.8
Furnishing & Erecting Structural Steel	Lb	608,970	—	608,970
Reinforcement Bars	Lb	118,500	57,770	176,270
Fur. Crea. Piles up to 20 ft	Lin Ft	—	720	720
Driving Timber Piles	Lin Ft	—	720	720
Furnishing Steel Piles 10BP42	Lin Ft	—	1040	1040
Test Piles Steel 10BP42	Each	—	2	2
Driving Steel Piles	Lin Ft	—	1040	1040
Name Plates	Each	2	—	2
Slope Wall 4'	Sq Yd	—	1134	1134
Aluminum Handrail	Lin Ft	483	—	483
Bridge Seat Sealant	Linear Sum	—	0.1	0.1
Protective Coat	Sq Yd	1880	—	1880

* Includes excavation for Slope Walls
** Applied at abutments.

Rev. 12-19-62 Prof. Cont. - 1880 by Yd. S.F.M.

12-1-64 J.M.J. Rev. class x conc. 1030.4 to 1030.8 cu yds, reb. bars from 16,810 to 176,270
Slope wall from 1134 to 1134 sq yds. added bridge seat sealant.

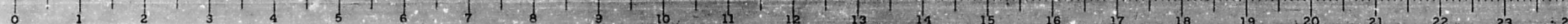
© Denotes Boring Location

Note: Approach slabs are to be constructed in accordance with Method II. See Illinois Standard Div. 1909-6 See sheet 10.

DESIGNED	GMN
CHECKED	CS
DRAWN	GMN
CHECKED	H.S.P.

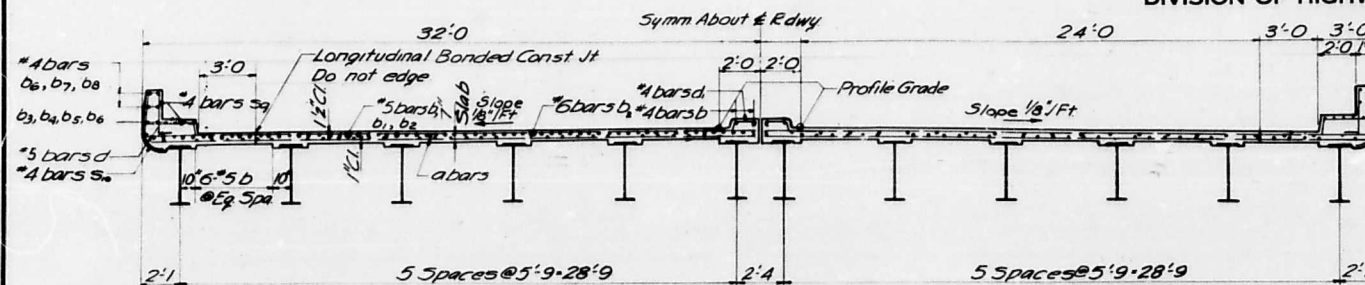
Prepared and recommended by Blauvelt Engineering Co.
Structural Engineer
81-2251
Case A. Wengert

Revised: Change leng. of Crea. Piles from 28' to 20'.
2-27-63 Change Furn. Driving Crea. Timber Piles from 720 to 720 Lin. Ft.



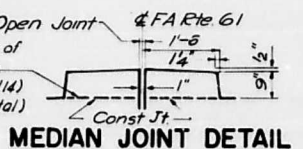
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 61	10	WILL	197	136
PER ROAD DIST. NO. 7		ILLINOIS	PROJECT	



CROSS SECTION

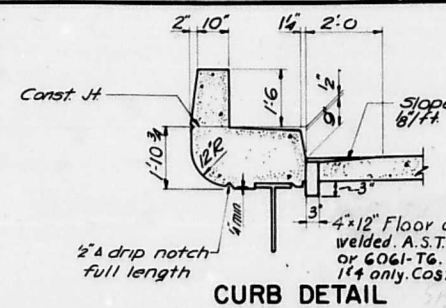
After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at int shown on D.L. Defl. Diag. From these elevations subtract the increment of deflections for these points determined from the D.L. Deflection Diagram. The elevations so obtained subtracted from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



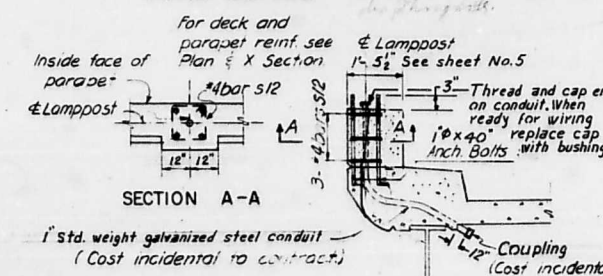
BILL OF MATERIALS

Class X Concrete	Cu Yds	136.0
Reinf. Bars	Lbs	118,500
Structural Steel	Lbs	608,970

Structural Steel includes weight of rockers, bolsters, bearing plates, lead plates, pintles, and anchor bolts. Estimated Wt. = 14,530



CURB DETAIL



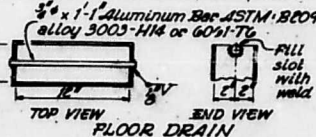
SECTION A-A

SECTION THRU PARAPET

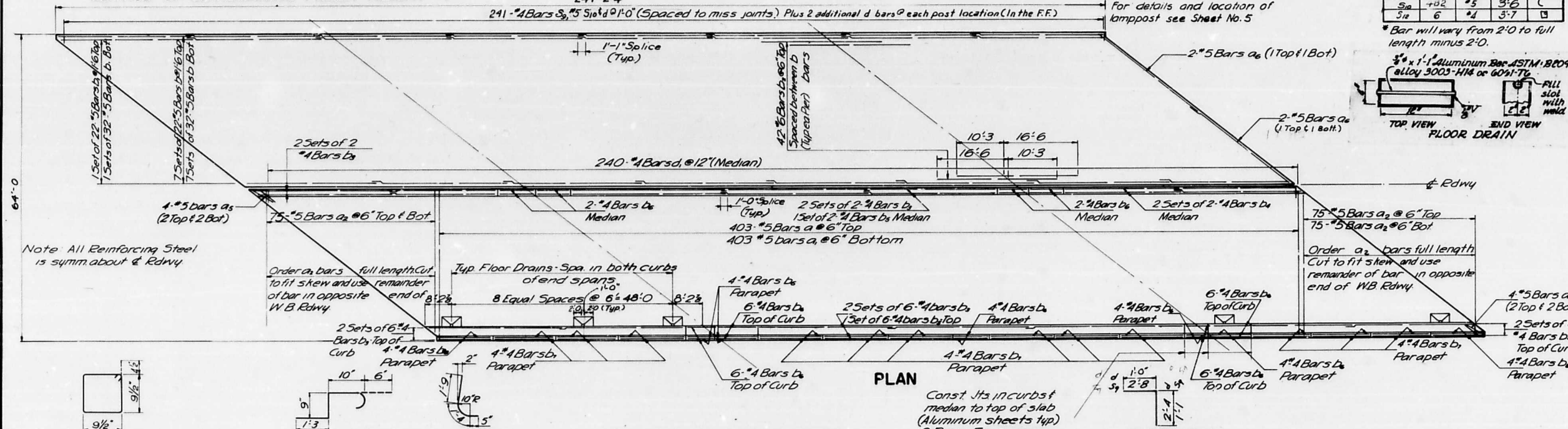
BILL OF REINFORCEMENT

Bar	No.	Size	Lgth.	Shape
a	606	#5	31'8"	
a	806	#5	31'2"	
a	300	#5	32'0"	
a	16	#5	4'0"	
a	16	#5	26'6"	
b	756	#5	30'0"	
b	108	#5	38'6"	
b	168	#6	26'9"	
b	64	#4	30'0"	
b	32	#4	28'0"	
b	16	#4	39'0"	
b	104	#4	7'0"	
b	96	#4	14'6"	
b	16	#4	11'6"	
d	616	#5	3'4"	
d	480	#4	3'4"	
s	482	#4	3'4"	
s	+32	#5	3'6"	
s	6	#4	3'7"	

*Bar will vary from 2'-0" to full length minus 2'-0".



METHOD OF DETERMINING FILLET HEIGHT "f"



PLAN

ELEVATIONS-TOP OF SLAB**

(See sheet #3 for locations of points)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	60763	60758	60752	60746	60738	60728	60718	60707	60695	60682	60668	60653	60637	60619	60601	60582	60561	60540	60516	60492	60466	60440	60412	60383
B	60766	60760	60754	60746	60737	60728	60717	60705	60692	60678	60663	60647	60630	60612	60593	60573	60552	60529	60505	60480	60454	60427	60399	60369
C	60769	60762	60755	60746	60737	60728	60717	60705	60692	60678	60663	60647	60630	60612	60593	60573	60552	60529	60505	60480	60454	60427	60399	60369
D	60770	60763	60755	60746	60737	60728	60717	60705	60692	60678	60663	60647	60630	60612	60593	60573	60552	60529	60505	60480	60454	60427	60399	60369
E	60771	60763	60754	60744	60733	60721	60708	60694	60679	60663	60643	60623	60608	60598	60588	60574	60559	60544	60529	60514	60498	60482	60466	60450
F	60772	60763	60754	60743	60731	60718	60704	60689	60673	60656	60639	60620	60600	60579	60558	60536	60513	60489	60464	60439	60414	60389	60364	60339
G	60769	60761	60751	60740	60728	60714	60700	60685	60668	60650	60633	60614	60594	60573	60551	60528	60504	60479	60454	60429	60404	60379	60354	60329
H	60757	60749	60737	60725	60712	60697	60682	60666	60649	60632	60614	60596	60577	60558	60538	60517	60495	60472	60449	60426	60403	60380	60357	60334
I	60745	60734	60723	60710	60697	60683	60668	60652	60635	60618	60600	60582	60564	60545	60526	60507	60487	60467	60447	60427	60407	60387	60367	60347
J	60732	60721	60709	60696	60683	60669	60654	60639	60623	60606	60589	60572	60555	60538	60521	60504	60487	60470	60453	60436	60419	60402	60385	60368
K	60718	60706	60693	60679	60664	60649	60633	60617	60601	60584	60568	60551	60534	60517	60500	60483	60466	60449	60432	60415	60398	60381	60364	60347
L	60704	60691	60677	60662	60646	60629	60611	60592	60572	60551	60529	60505	60481	60457	60433	60409	60385	60361	60337	60313	60289	60265	60241	60217
M	60704	60691	60677	60662	60646	60629	60611	60592	60572	60551	60529	60505	60481	60457	60433	60409	60385	60361	60337	60313	60289	60265	60241	60217

** Where Curb or Raised Median is over stringer, elevation shown is that of the projection of top of slab along its cross slope

SLAB PLAN & CROSS SECTION

FA 61 OVER
MCDONOUGH STREET
FA 61 STA. 81+12.97

FA ROUTE 61
SECTION 10
Scale: NO SCALE

PROJECT
WILL COUNTY
Date: NOV. 30, 1961

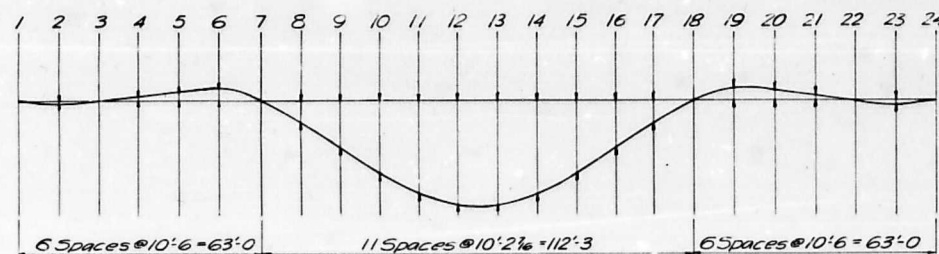
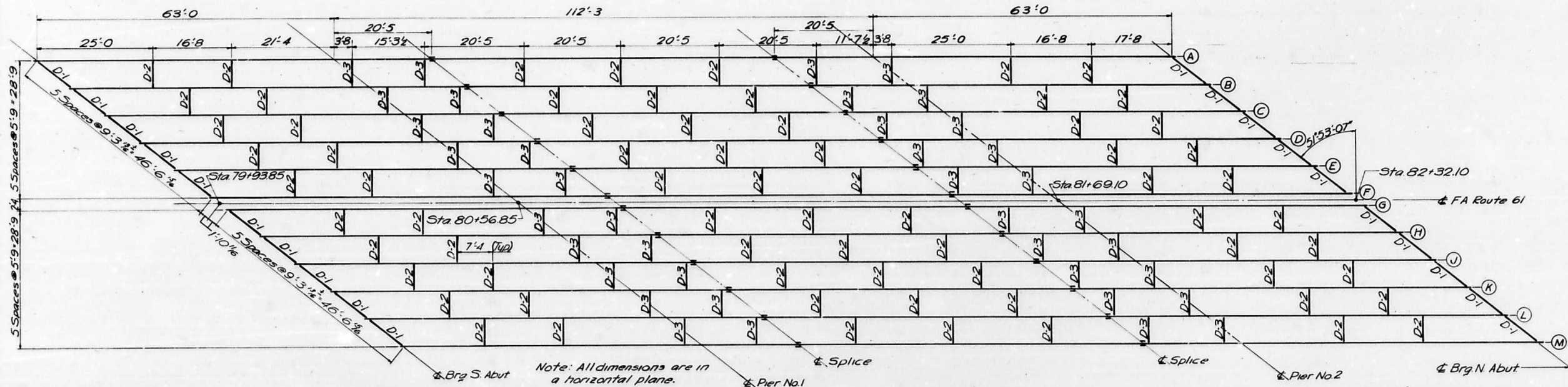
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

12-1-64 J.M.J. Rev. #4 sio'd @ 18' cts. to #5 @ 10' 0", #4 sio'd cts. to #4 @ 12' cts. and re-rein. bars from 118,410 to 118,500 lbs.

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 61	10	WILL	197	137
FED. ROAD DIST. NO. 1	ILLINOIS	PROJECT		

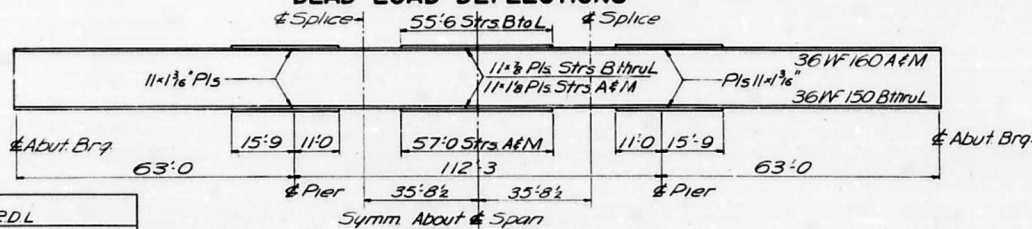
SHEET NO. 3
SHEETS 10



Str	Pt	2E23	4E21	5E20	6E19	8E17	9E16	10E15	11E14	12E13
A & M		0.0035	0.0064	0.0136	0.0187	0.0314	0.0657	0.1079	0.1369	0.1549
B thru L		0.0025	0.0046	0.0097	0.0134	0.0235	0.0486	0.0807	0.1021	0.1159

Δ = Dead load deflection in feet due to weight of slab

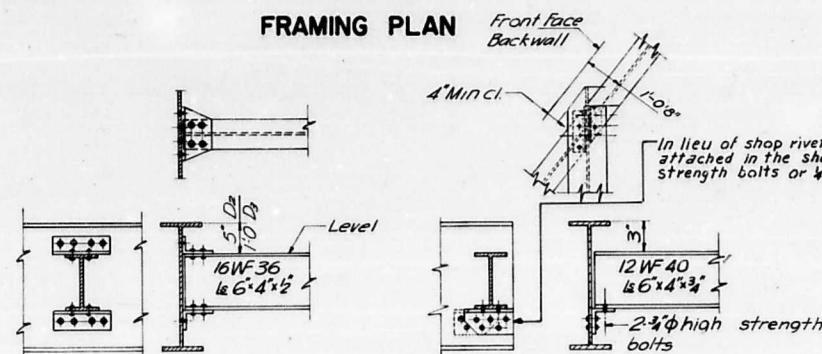
DEAD LOAD DEFLECTIONS



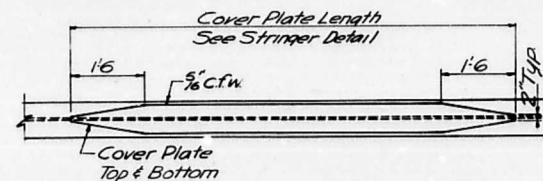
STRINGER DETAIL

DESIGNED	RDL
CHECKED	CS
DRAWN	GMM
CHECKED	HSE

FRAMING PLAN



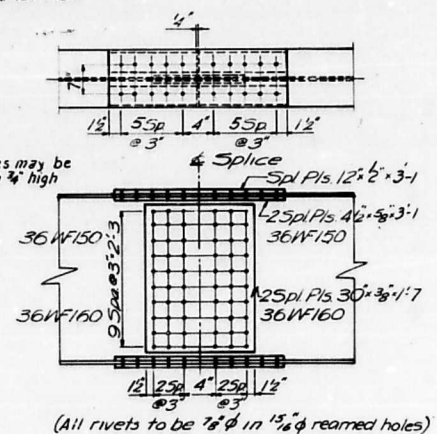
DIAPHRAGM D-2 & D-3



COVER PLATE DETAIL

At Pier 2 and At Piers 1 and 2
For Cover Plate Length See Stringer Detail

DIAPHRAGM D1



SPLICE DETAIL

Note: For top of stringer elevations see Sheet 4.

FRAMING PLAN AND STEEL DETAILS

FA 61 OVER

M^cDONOUGH STREET

FA 61 STA. 81+12.97

FA ROUTE 61

SECTION 10

Scale: NO SCALE

PROJECT

WILL COUNTY

Date: NOV. 30, 1961

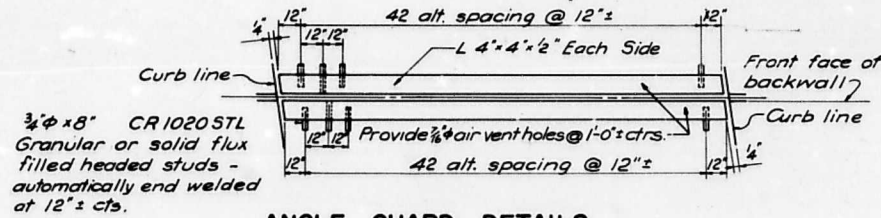
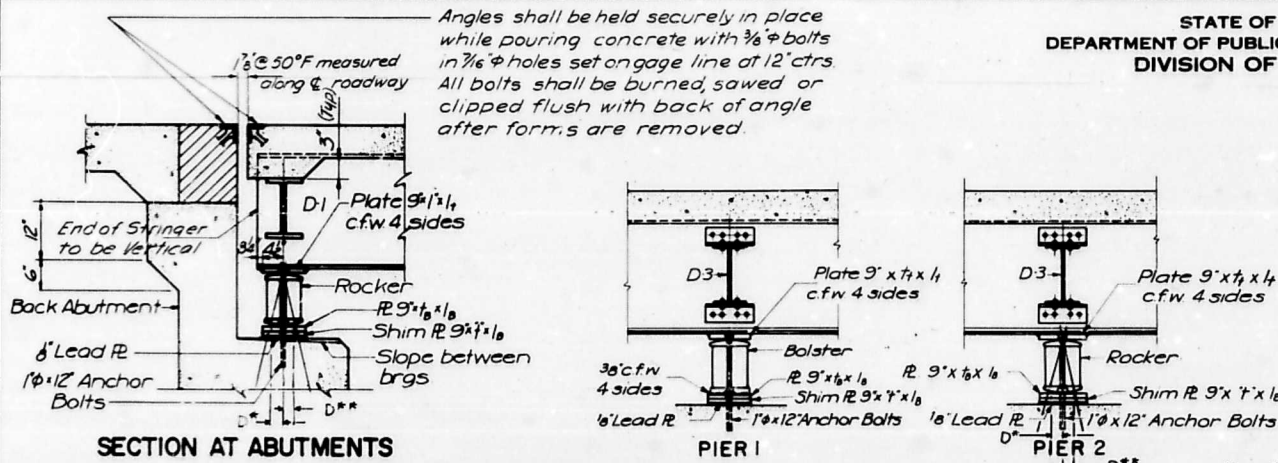
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

Revised: Remove note regarding Struct. Steel-A-373.
2-25-61
VDS

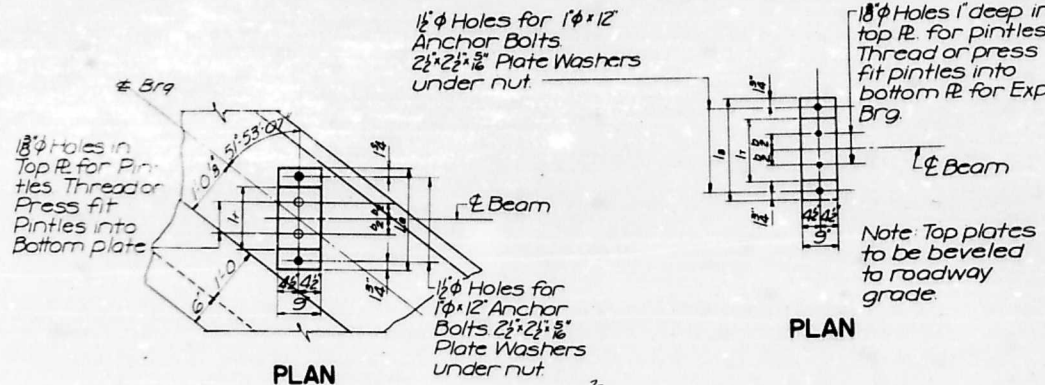
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
197	197	WILL	197	138
DES. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

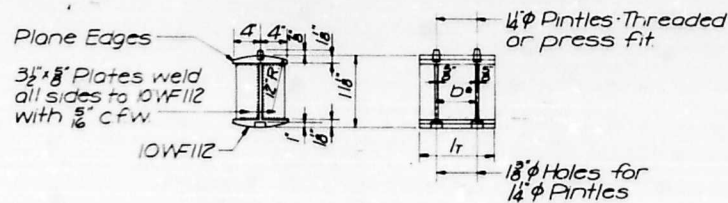
SHEET NO. 4
SHEETS 10



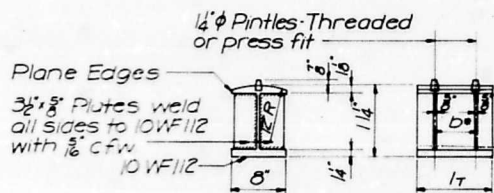
ANGLE GUARD DETAILS
(4 sets req'd)



PLAN



DETAIL OF EXPANSION BEARING



DETAIL OF FIXED BEARING

DIMENSIONS FOR BEARINGS

Str.	Location	Type	Lt	Lb	cfw	tb	ti	b
A thru M	S&N Abuts	Exp	13"	20 1/2"	2"	1 1/2"	1"	6 1/2"
A thru M	Pier 1	Fix	14"	21 1/2"	2"	1"	1 1/2"	20 1/2"
A thru M	Pier 2	Exp	14"	21 1/2"	2"	1 1/2"	1 1/2"	20 1/2"

TABLE OF "t" DIMENSIONS

Str.	S	Pier 1	Pier 2	N	Str.	S	Pier 1	Pier 2	N
A	1/2"				G				
B	3/8"				H				
C	1/4"				J				
D	1/8"				K				
E	3/16"				L				
F	1/16"				M				

AS AWARDED

TOP OF STRINGER ELEVATIONS

	S ABUT	PIER 1	SPLICE	SPLICE	PIER 2	N ABUT
A	606.90	606.45	606.22	605.09	604.67	603.10
B	606.94	606.45	606.20	605.01	604.57	602.97
C	606.96	606.42	606.16	604.92	604.47	602.81
D	606.98	606.38	606.12	604.82	604.36	602.65
E	606.99	606.36	606.07	604.72	604.24	602.49
F	607.00	606.32	606.01	604.61	604.12	602.32
G	606.97	606.28	605.96	604.54	604.04	602.23
H	606.85	606.17	605.78	604.31	603.79	601.93
J	606.73	605.94	605.60	604.07	603.53	601.63
K	606.60	605.76	605.40	603.82	603.27	601.32
L	606.46	605.58	605.20	603.57	603.01	601.01
M	606.31	605.38	604.99	603.30	602.72	600.68

These elevations are at top of top flange of stringers (exclusive of cover and splice plates) and are for fabrication of structural steel (no allowance for deflections)

AS BUILT

* TOP OF STRINGER ELEVATIONS

	S ABUT	PIER 1	SPLICE	SPLICE	PIER 2	N ABUT
A	606.90	606.47	606.33	605.19	604.68	603.11
B	606.94	606.48	606.33	605.14	604.61	602.97
C	606.97	606.45	606.28	605.03	604.49	602.81
D	606.98	606.42	606.24	604.94	604.38	602.65
E	607.00	606.38	606.18	604.83	604.26	602.49
F	607.00	606.34	606.13	604.73	604.14	602.32
G	606.97	606.30	606.09	604.65	604.06	602.23
H	606.85	606.13	605.90	604.42	603.81	601.93
J	606.73	605.96	605.71	604.19	603.56	601.63
K	606.60	605.78	605.51	603.93	603.29	601.32
L	606.46	605.60	605.32	603.69	603.03	601.00
M	606.31	605.40	605.11	603.41	602.74	600.68

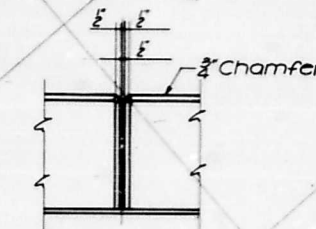
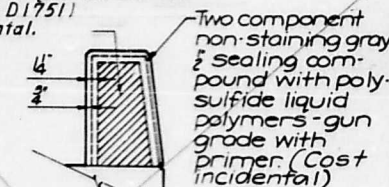
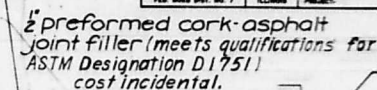
BEARING & MISC. STEEL DETAILS

FA 61 OVER
MCDONOUGH STREET

FA 61 STA. 81+12.97
FA ROUTE 61 PROJECT
SECTION 10
Scale: NO SCALE
Date: NOV. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

Rev. Top Of Stringer Elevations-As Built 4-12-66 L.W.

SHEET NO. 5
SHEETS 10



PARAPET JOINT DETAILS



LAMPPOST DETAILS

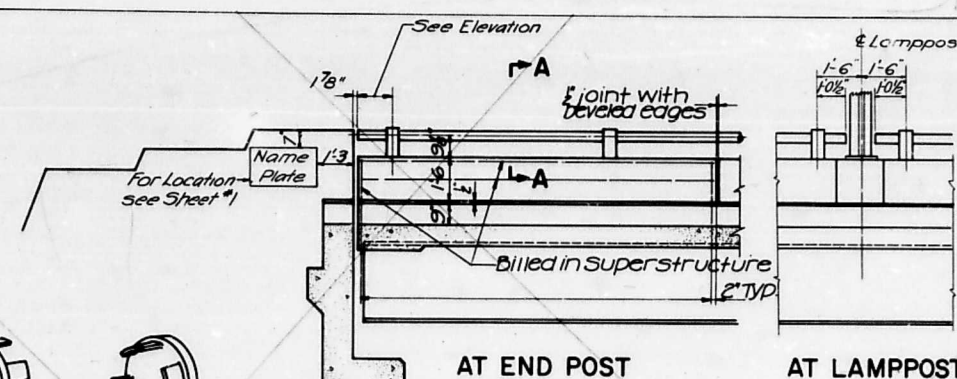


VIEW B-B

SECTION A-A

RAIL POST DETAILS

* For each post provide 1 prefabricated pad. (See Article 54.9(f) of the Standard Specifications for Material. Cost to be incidental to the contract.



AT END POST

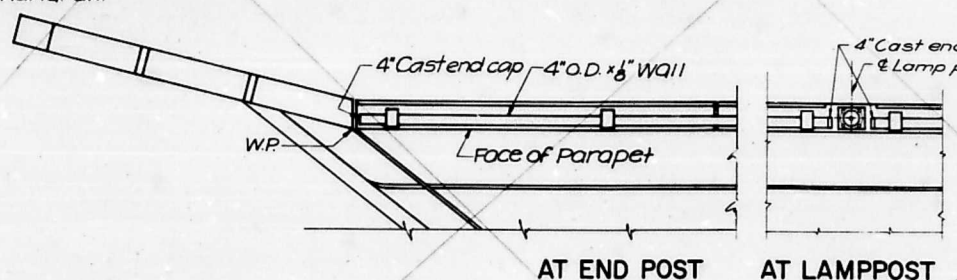
AT LAMPPOST

SEC THRU CURB

ELEVATION

CAST END CAP

Drive fit type - 8 Required
Incidental to item Aluminum Handrail.



AT END POST

AT LAMPPOST

PLAN

BILL OF MATERIAL

Item	Unit	Quantity
Alum. Handrail	Lin. Ft.	483

NOTES

All Posts shall be placed normal to parapet.
 All Posts shall conform to ASTM Specification B-108 alloy 5052-H32.
 All Rail tubing shall conform to ASTM Specification B-235 alloy 6061-T6.

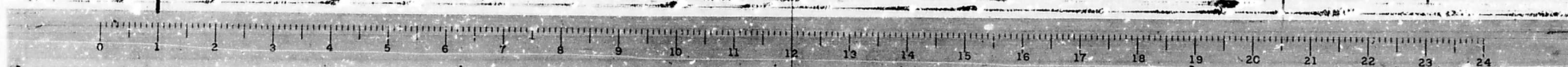
Roll tubing may be cut to a maximum of 3 Panel lengths.
Set Screws shall be of Aluminum conforming to ASTM Specification B-211 Alloy 2024 - T4
The contract unit price per linear foot for Aluminum Handrail shall include the furnishing, fabrication, transportation and erection of all material.

RAILING DETAILS
FA 61 OVER
MCDONOUGH STREET
FA 61 STA. 81+12.97

F A ROUTE 61 PROJECT
SECTION 10 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	GMN.
CHECKED	C.S.
DRAWN	S.E.F.
CHECKED	HSP

Revised: 2-27-63
VDS



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
147 147 147	10 10 10	WILL	197	139 A
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT-	

SHEET NO. 6
10 SHEETS

VIEW B-B

6" holes with 5° draft

2-5/8" x 1 1/8" std. welded stud with washer and locknut
Stnl. stl.

2-5/8" holes with 5° draft in base of post for 2-5/8" x 1 1/8" hex. hd. machine bolts
Std. flat washers
Stnl. stl.

6" Prefab. Pod

2-3/8" welded studs drilled & tapped for 5/8"-13
ASTM A108 (1020)

3/8" x 1" x 7"

SECTION A-A

6 1/2" x 1" x 6" bar (stnl. stl.)

CAST END CAP
DRIVE FIT TYPE
Required

This surface cast flat and true or machine

2-5/8" holes with 5° draft in base of post for 2-5/8" x 2" hex. hd. machine bolts
Std. flat washers
Stnl. stl.

Front face of parapet

2-1" welded studs drilled & tapped for 3/8"-10
ASTM A108 (1020)

6 1/2" x 1 1/2" x 7"

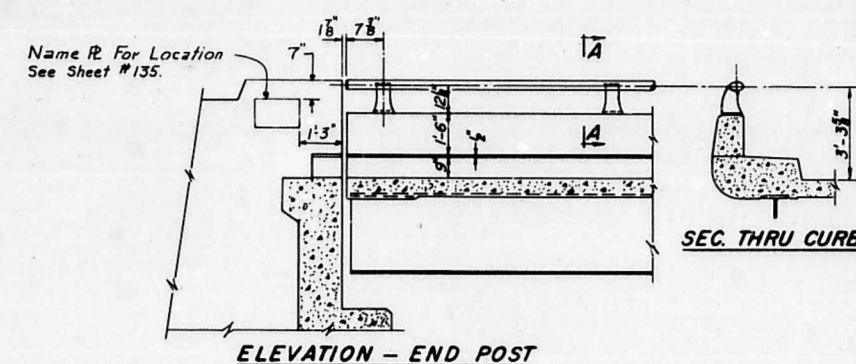
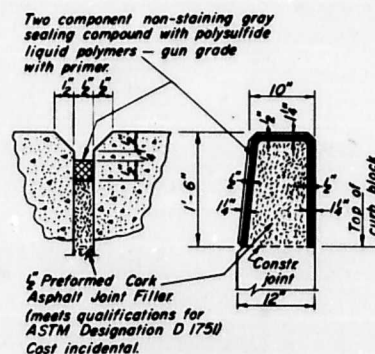
SEC. THRU ELLIPTICAL RAIL SECTION

SEC. THRU SPLICE

Splice must be a sliding fit in Rail Section

DESIGNED	19
CHECKED	ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
DRAWN Mr. M. Best	PASSED
CHECKED	APPROVED
	CHIEF HIGHWAY ENGINEER

R-17 Own 5-28-64



NOTES:

All Posts shall be normal to parapet.

All Aluminum Alloy Extruded Rail shall conform to ASTM specification B-235 alloy 6061-T6, or 6062-T6, and shall extend a minimum of 2 panel lengths (attached to minimum of 3 posts) except at ends or at open joints where a minimum of 1 panel length is required. All joints in railing must be spliced per detail.

See Special Provisions for following Material Specifications

Cast Aluminum Alloy Bridge Post— Alloy 344-T4.

Stainless Steel Welded Stud Bolts, Washers, and Locknuts

For material composition of Prefabricated Pad, see Article 54.9(f), (Bearing and Anchorage), of the Standard Specifications.

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

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

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

<u>BILL OF MATERIAL</u>		
Item	Unit	Quantity
ALUMINUM HANDRAIL	Lin. Ft.	483

ALUMINUM HANDRAIL

F.A. ROUTE 61 SECTION 10
STR. # 7
WILL COUNTY
STA. 81+12.97

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PA 69 FAP	10 F-2-3 99-3	WILL	197	140
FED ROAD DIST. NO. 7		ILLINOIS	PROJECT	

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

3'-3"

5'-39 1/2" (100)

Anchor Bolt
Spacing (Typ)

7 1/8"

7 1/8"

25'-1 1/16"

5 3/8"

5 3/8"

1'-10 1/16"

5 Spaces @ 9'-3 1/8" = 46'-6 3/8"

Symmetrical Pier
except as noted

25'-1 1/16"

£ Brq

£ FA R+61

Pier 1 Sta 80+56.85
Pier 2 Sta 81+69.10

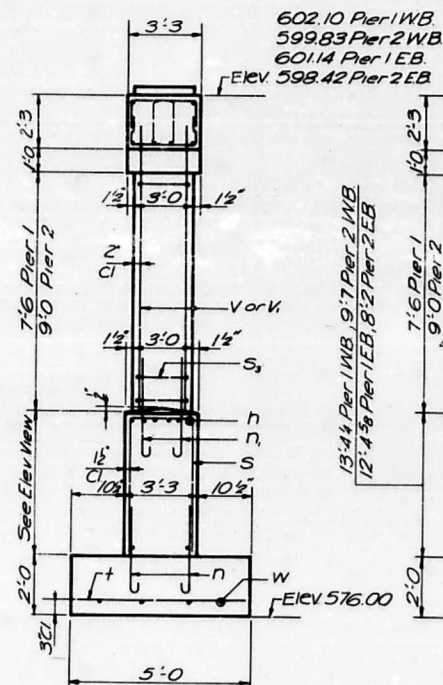
Ahead Station WB.Rdwy.

Ahead Station EB.Rdwy.

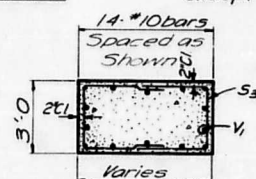
Varies

3'-3"

Note:
For Bearing Seat Elevations, Spacing,
& Reinforcement see sheet #9
Reinforcement billed on this sheet.

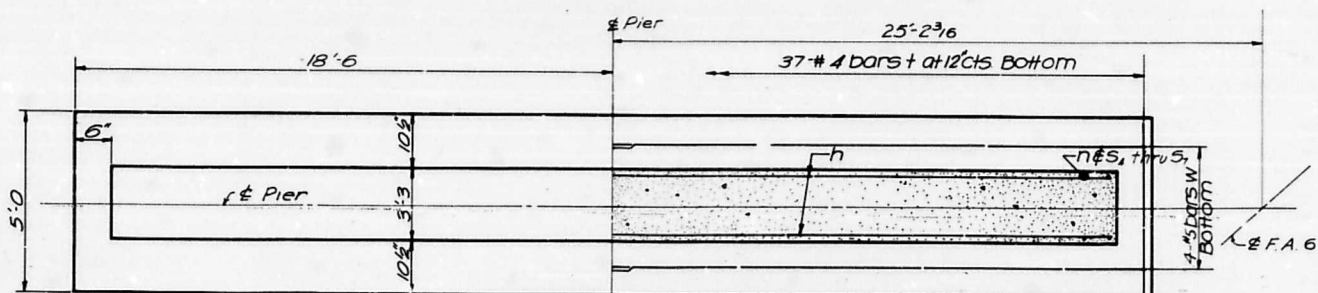


Note: All edges shall have standard 3" chamfer except footing.

[illegible]

ELEVATION

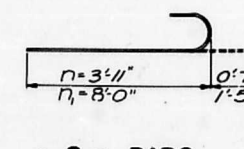
Note:
Footings shall extend 1'-0"
minimum into sound rock.
Maximum Bearing Pressure
= 3.2 T. per sq. ft.



S₁₀ BARS

Sites, BARS A & B DIMENSIONS

Bar	A	B
S ₁	1 st /1	2 nd /0
S ₂	1 st /1	1 st /6
S ₃	2 nd /8	2 nd /8
S ₄	2 nd /1	7 th /9
S ₅	2 nd /1	12 th /0
S ₆	2 nd /1	9 th /3
S ₇	2 nd /1	13 th /0
S ₈	2 nd /7	2 nd /5

u BARS

n & n₁ BARS

Bar	Nb	Size	Lgth	Shd
<i>h</i>	116	*5	36:8	—
<i>h₁</i>	2	*4	33:0	—
<i>h₂</i>	2	*4	24:9	—
<i>h₃</i>	2	*4	6:0	—
<i>n</i>	296	*5	4:6	—
<i>n₁</i>	168	*10	9:5	—
<i>P</i>	32	*4	7:0	—
<i>P₁</i>	12	*11	49:11	—
<i>P₂</i>	88	*11	14:9	—
<i>P₃</i>	8	*11	16:0	—
<i>P₄</i>	16	*4	25:6	—
<i>P₅</i>	16	*10	36:3	—
<i>S</i>	96	*5	12:8	□
<i>S₁</i>	320	*5	5:11	□
<i>S₂</i>	160	*5	4:11	□
<i>S₃</i>	204	*4	8:0	□
<i>S₄</i>	37	*5	18:3	□
<i>S₅</i>	37	*5	26:11	□
<i>S₆</i>	37	*5	21:5	□
<i>S₇</i>	37	*5	28:11	□
<i>S₈</i>	46	*4	6:3	□
<i>t</i>	148	*4	4:8	□
<i>U</i>	24	*6	10:10	□
<i>V</i>	84	*10	10:6	□
<i>V₁</i>	84	*10	12:0	□
<i>W</i>	32	*5	18:9	□
Reinf Bars			Lb	450#

Reinf Bars	Lb	450
------------	----	-----

Rock Excavation		
Pier 1	cu yds	7
Pier 2	cu yds	20
Class x concrete		
Pier 1	cu yds	20.1
Pier 2	cu yds	173.6
Class A Exc.		
Pier 1	cu yds	20.1
Pier 2	cu yds	15.5

Above bill of material is for 4 piers.

FA 61 OVER
MCDONOUGH STREET
FA 61 STA. 81+12.97

FA ROUTE 61
SECTION 10
Scale: NO SCALE

PROJECT
WILL COUNTY
Date: NOV 30, 1991

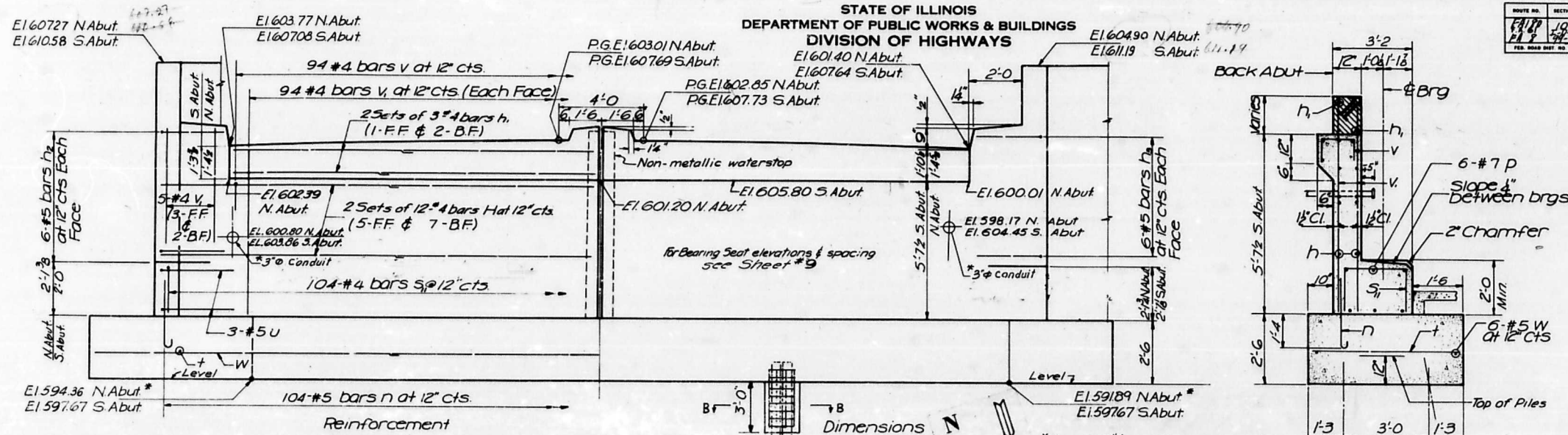
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N.J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

DESIGNED	RDL
CHECKED	CS
DRAWN	GMN
CHECKED	HSP

17-2-64 J.M.J. Rev. Reinf. bars from 40010 to 45,040 lbs

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

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEETS
10	10	WILL	197	141
10	10	WILL	197	141



NO. & SO. ABUTMENTS
BAR LIST

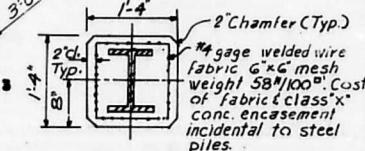
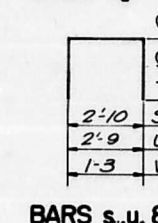
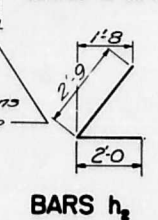
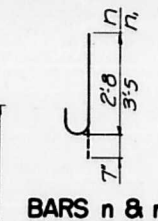
Bar	No.	Size	Lgth	Shape
h	96	#4	27'-3"	
h ₁	24	#4	23'-9"	
h ₂	12	#5	4'-9"	
h ₃	12	#5	5'-0"	
n	208	#5	3'-3"	
n ₁	56	#5	4'-0"	
p	48	#7	27'-3"	
s ₁	208	#4	6'-6"	
t	208	#5	5'-0"	
t ₁	32	#5	4'-6"	
u	12	#5	5'-9"	
v	188	#4	2'-9"	
v ₁	396	#4	6'-6"	
w	36	#5	34'-1"	
w ₁	10	#5	11'-0"	
w ₂	10	#5	8'-9"	

NO. & SO. ABUTMENTS
BILL OF MATERIALS

Item	Unit	Quan.
Class X Concrete	Cu Yds	219.7
Reinf. Bars	Lbs	12750
Steel Piles (10BP42)	L.F.	1040
Test Piles (Steel 10BP42)	Each	2

Note: Bill of Materials includes Reinforcement and Class X Concrete for End Posts. Quantities for each abut. are equal, i.e. One half total quantities per abut.

SECTION A-A



Typ. All Steel Piles

ABUTMENTS
FA 61 OVER
Mc DONOUGH STREET
FA 61 STA. 81+12.97

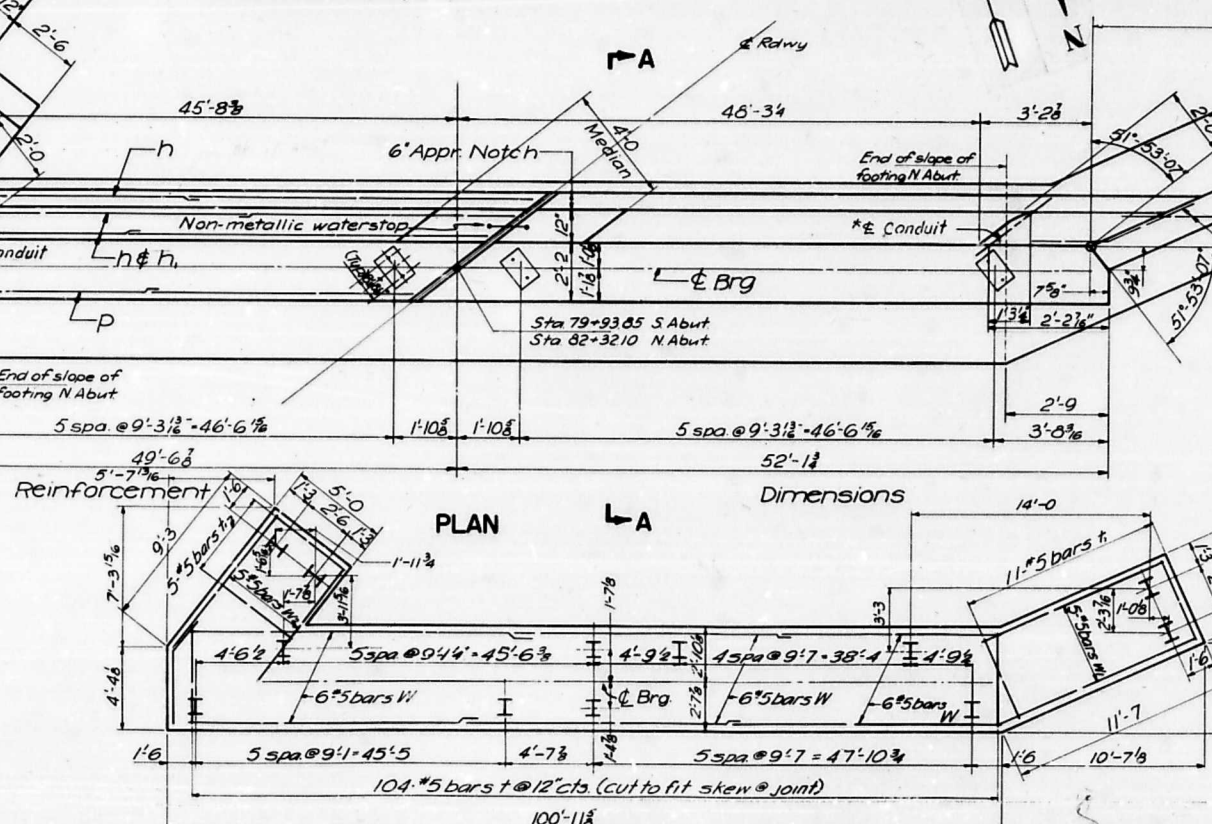
FA ROUTE 61
SECTION 10
Scale: NO SCALE
PROJECT
WILL COUNTY
Date: NOV. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

PILE DATA
Type: 10BP42
Capacity: Refusal
Est. Length: 20 Feet
No. Req'd: 52 (2 Abut.)
Test Piles: 1 each Abut.

For Details of End Post see Sheet B

DESIGNED	LAN
CHECKED	C.S.
DRAWN	GMN
CHECKED	H.S.R.

FOOTING PLAN



12-2-64 J.M.J. Rev. class X from 219.3 to 219.7 cu yds.

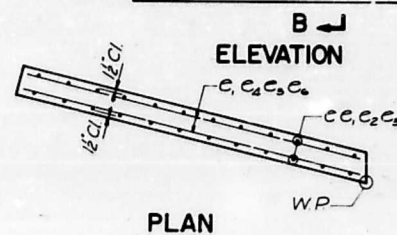
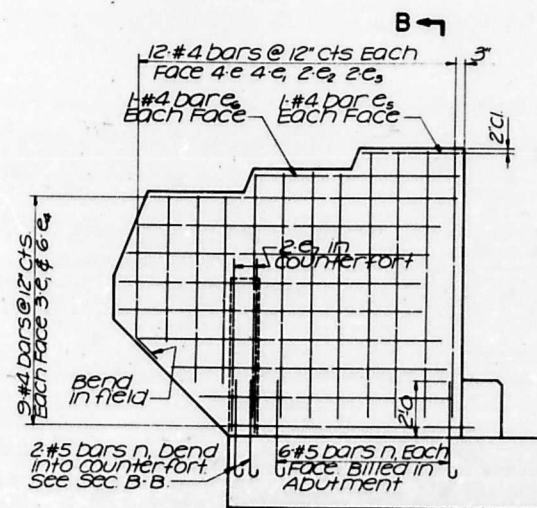
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
110	10	WILL	197	142
SHEETS 10				

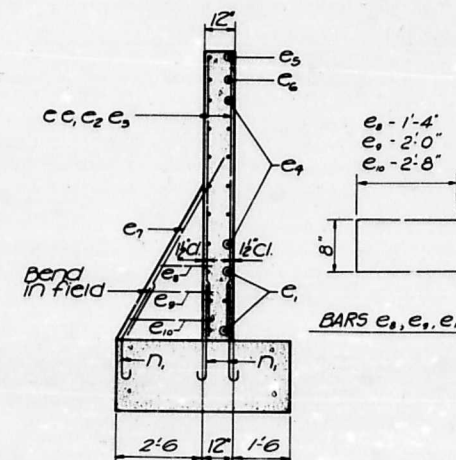
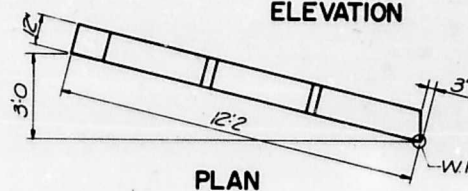
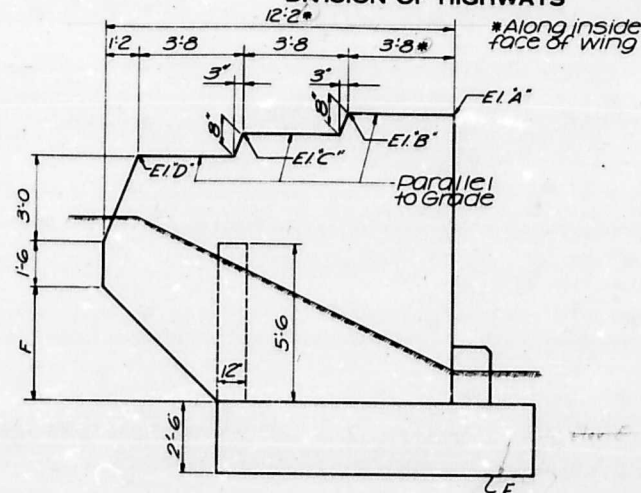
ONE END POST
BILL OF MATERIAL

Bar	No.	Size	Lnth	Shape
e	8	#4	9.5	—
e ₁	14	#4	8.6	—
e ₂	4	#4	6.6	—
e ₃	4	#4	5.0	—
e ₄	12	#4	10.6	—
e ₅	2	#4	3.6	—
e ₆	2	#4	7.0	—
e ₇	2	#5	7.0	—
e ₈	1	#4	3.2	n
e ₉	1	#4	4.6	n
e ₁₀	1	#4	3.10	n
Reinforcement Bars				lbs 280
Class x Conc.				
North Abut				cuyds 8.3
South Abut				cuyds 8.7

*Included in Quantity on sheet #7



Note: Piles not shown.
For spacing see
sheet #1



SECTION B-B

Elev	N Abut		S Abut	
	WWW	EW.W	WWW	EW.W
A	607.27	604.90	611.19	610.58
B	607.17	604.77	611.20	610.62
C	606.40	603.97	610.54	609.99
D	605.62	603.17	609.88	609.36
E	594.36	591.89	597.67	597.67
F	5'-10 1/8"	6'-0 1/8"	6'-6 1/4"	5'-10 1/8"

DESIGNED	GMN
CHECKED	CS
DRAWN	GMN
CHECKED	HSR

ABUTMENT DETAILS
FA 61 OVER
M^C DONOUGH STREET
FA 61 STA. 81+12.97

FA ROUTE 61
SECTION 10
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.

12-2-64 J.M.J. Rev. class x conc. N. abut. from 8.1 to 8.3 cuyds. S. abut. from 8.5 to 8.7 cuyds.

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
FA. 61	10	WILL	197	143	9
PER. ROAD DIST. NO. 1	ILLINOIS	PROJECT			SHEETS 10

Boring No. 1
Boring located at Sta. 79+67
28' Left of C

Elev.	N	Ground El. 588.0
		Bituminous Surface Treatment
		Medium dense white gravel fill
585	19	Qu=1.9
		Stiff brown silty clay, trace of gravel
	35	Qu=3.0
580	80.0% Rec.	Medium hard stratified limestone with lenses of soft brown limestone

Boring No. 2
Boring located at Sta. 80+93
25' Right of C

Elev.	N	Ground El. 584.4
		Medium stiff black topsoil
	24	Qu=2.6
580		Very stiff brown silty clay, trace of gravel
	30	Qu=2.9
575	80.6% Rec.	Medium hard stratified limestone with lenses of soft brown limestone

Boring No. 3
Boring located at Sta. 81+40
27' Left of C

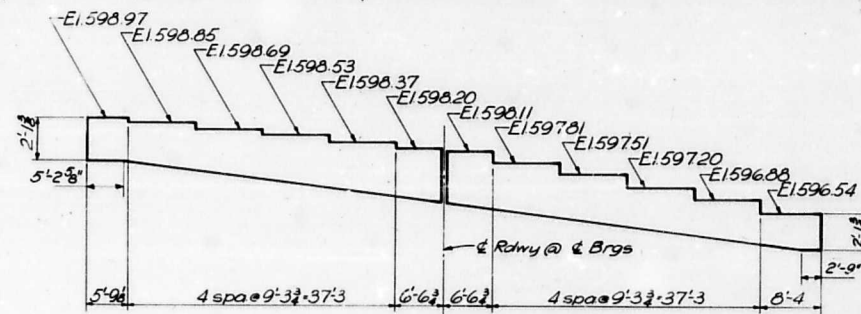
Elev.	N	Ground El. 584.9
		Bituminous Surface Treatment
		Medium dense white gravel fill
	20	Qu=2.0
580		Stiff brown silty clay, trace of gravel
	71.1% Rec.	Medium hard stratified limestone with lenses of soft brown limestone
575		

Boring No. 4
Boring located at Sta. 82+69
44' Right of C

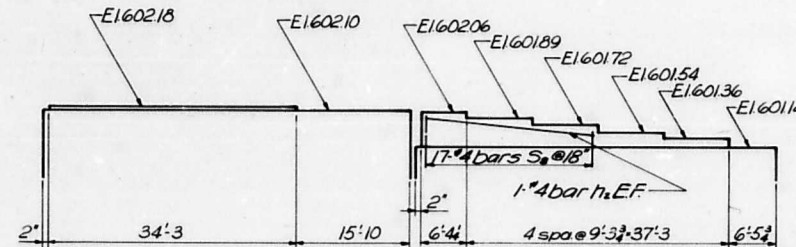
Elev.	N	Ground El. 581.9
		Loose black cinders and clay fill
580		Medium dense brown sand and large gravel with clay
	55.4% Rec.	Medium hard stratified limestone with lenses of soft brown limestone
575		

Note: N=Blows per ft. of penetration of sampling spoon. Hammer Wt=140 lbs. Drop=30"
Qu=Unconfined compressive strength in tons per square foot.

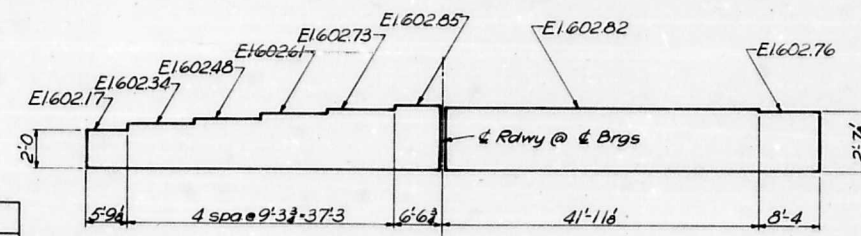
BORING DATA



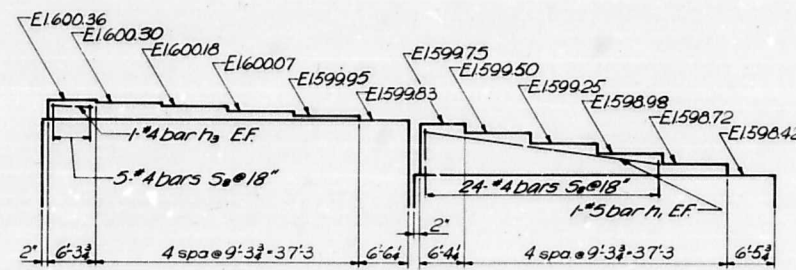
NORTH ABUTMENT
Looking Ahead



PIER 1
Looking Ahead



SOUTH ABUTMENT
Looking Back



(Pad Reinforcement billed on Sheet #6)
PIER 2
Looking Ahead

ELEVATIONS & BORING DATA
FA. 61 OVER
MC DONOUGH STREET
FA. 61 STA. 81+12.97

DESIGNED CS
CHECKED GMN
DRAWN E.P.
CHECKED HSR

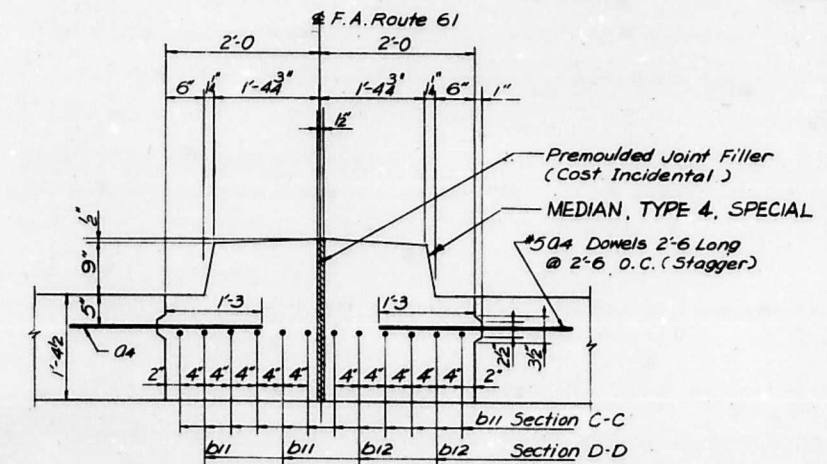
PROJECT
WILL COUNTY
Date: NOV. 30, 1961
BLAUVELT ENGINEERING CO.
CONSULTING ENGINEERS
WOODBURY, N. J. NEW YORK, N. Y. CRYSTAL LAKE, ILL.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FL 8 FMD 10	10 FMD 3	WILL	197	144
PER. ROAD DIST. NO. 7		ILLINOIS	PROJECT.	

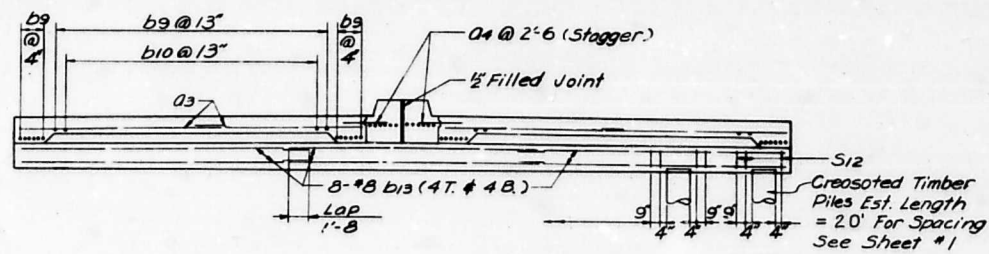
Technical drawing of a bridge deck cross-section showing reinforcement details. The drawing includes dimensions for various parts of the deck, including the main span (53'-11 1/2") and the approach slabs (20'-0"). Reinforcement bars are shown with labels like 10-#5, 20-#5, 16-#5, and 29-#5. A note indicates that the reinforcing shown is typical for all four quadrants except for the central span. The drawing also shows the profile of the bridge deck, including the main span and the approach slabs, and the location of the bridge piers (P.G.L. W.B. Rdwy and P.G.L. E.B. Rdwy). A north arrow is present in the upper right corner.

Note:
Reinforcing Shown is Typical
For All Four Quadrants Except

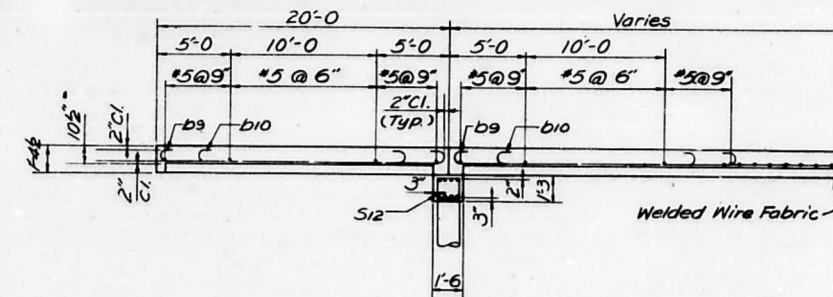
PLAN



SECTION C-C & D-D



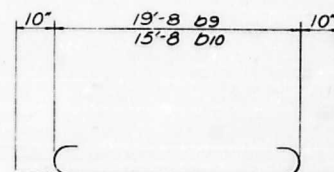
SECTION A-A



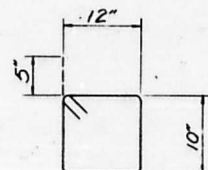
SECTION B-B

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
Q3	320	#5	19'-10	—
Q4	90	#5	2'-6	—
D9	248	#8	21'-4	C
D10	144	#8	17'-4	C
D11	28	#8	19'-8	—
D12	8	#8	27'-3	—
D13	118	#8	29'-0	—
S12	140	#4	4'-6	☒



BARS b9 & b10



BAR S12

DESIGNED	J. J. H.
CHECKED	R. H. W.
DRAWN	J. J. H.
CHECKED	R. H. W.

APPROACH SLABS
 F A ROUTE 61 OVER McDONOUGH ST.
 F A ROUTE 61 STA. 81+12.97
 F A ROUTE 61 PROJECT
 SECTION 10 (STR. 7) WILL COUNTY
 Scale: *No Scale* Date: Nov. 30, 1961
 BLAUVELT ENGINEERING CO
 CONSULTING ENGINEERS
 WOODBURY, N.J. NEW YORK, N.Y. CRYSTAL LAKE, ILL.

Revised: Sect AA Cre Piles-change leny from 22' to 20'.
2-28-63 Bill of Matl: Cre Piles-change from 792 to 720 lin. ft.
VDS