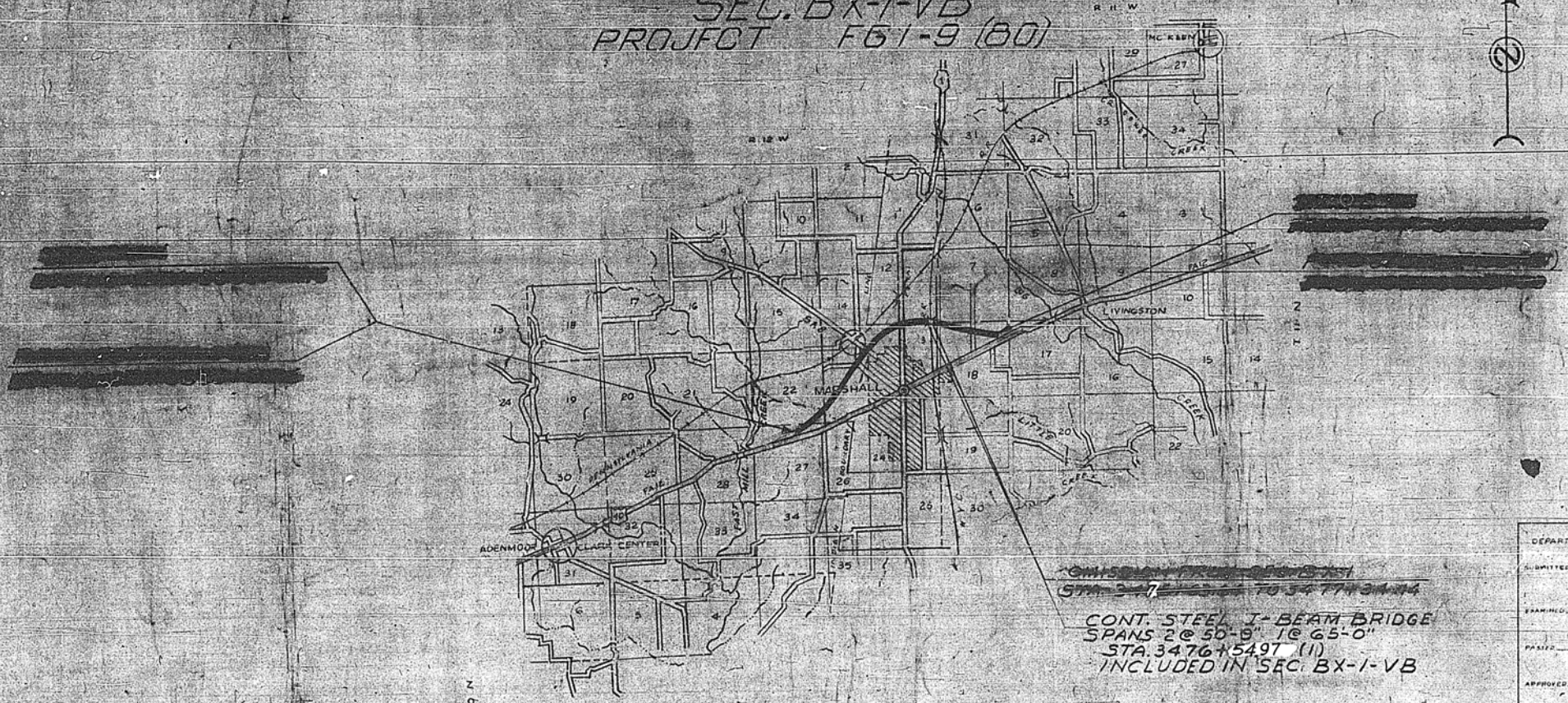


**STATE OF ILLINOIS**  
**DEPARTMENT OF PUBLIC WORKS AND BUILDINGS**  
**DIVISION OF HIGHWAYS**  
**PLANS FOR PROPOSED**  
**FEDERAL AID HIGHWAY**

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET
12	BX-1-VB	CLARK	20	1
FED. AID PROJ. NO. ILL. CLARK COUNTY F61-9(00)				

**SCALES**  
 PLAN 1 INCH = 100 FT  
 PROFILE HOR. 1 INCH = 100 FT  
 PROFILE VERT. 1 INCH = 10 FT  
 CROSS-SECTIONS 1 INCH = 5 FT VERTICAL  
 1 INCH = 10 FT HORIZONTAL

**ROUTE 12 CLARK COUNTY**  
**SEC. BX-1-VB**  
**PROJECT F61-9(00)**



~~CHASSIS FROM 28000000~~  
~~STA 347+00 TO 347+34.34~~  
 CONT. STEEL I-BEAM BRIDGE  
 SPANS 2 @ 50'-9" 1 @ 65'-0"  
 STA 3476+549T (11)  
 INCLUDED IN SEC. BX-1-VB

SEC. BX-1-VB

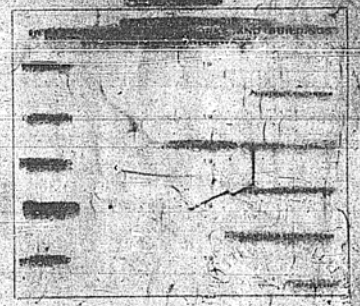
STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS AND BUILDINGS  
 DIVISION OF HIGHWAYS

SUBMITTED: May 15, 51  
 BY: W. E. Hagan  
 ENGINEER

EXAMINED: S. J. [Signature]  
 PASSED: W. J. [Signature]  
 APPROVED: Chas. Shively  
 DIVISION ENGINEER

APPROVED: J. N. Barker  
 DISTRICT ENGINEER

APPROVED: S. J. [Signature]  
 CHAS. BARRY



LAYOUT  
 APPROXIMATE SCALE 1" = 1 MILE  
 NET LENGTH IN SECTION

DEPARTMENT OF COMMERCE  
 BUREAU OF PUBLIC ROADS

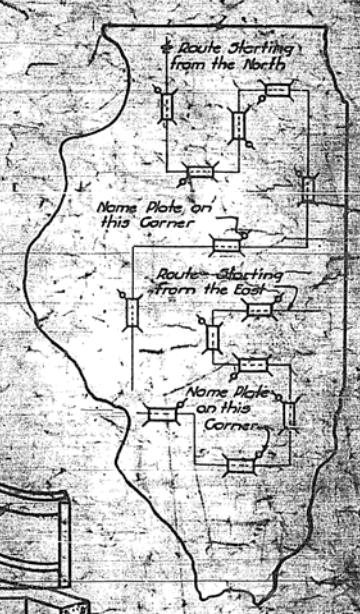
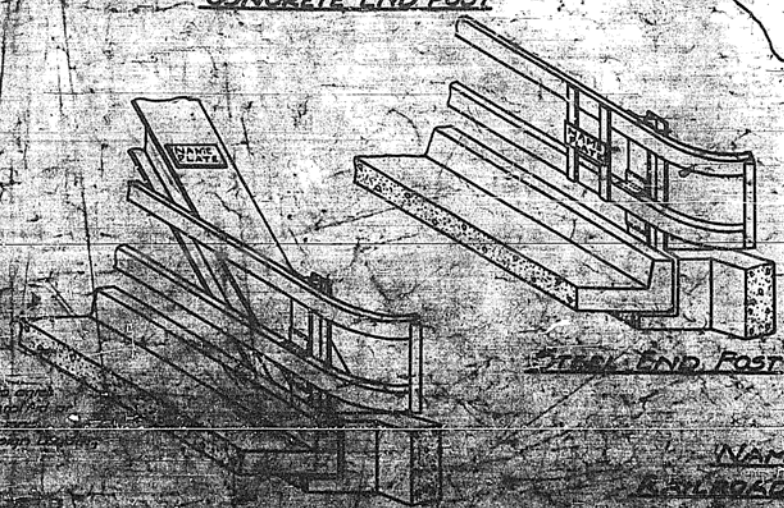
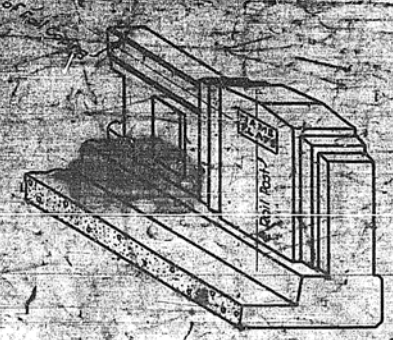
RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER DATE

APPROVED

DIVISION ENGINEER DATE

ALTON R.R. VIADUCT  
 BUILT 1942 BY  
 STATE OF ILLINOIS  
 ROAD AID RT. 14 SEC. 101-V  
 PROJ. A STA. 101+14  
 DESIGN LOADING H-20



*General notes for contractor:*  
 1. All concrete to be cast in place.  
 2. All steel to be hot rolled.  
 3. All steel to be galvanized.  
 4. All steel to be painted.  
 5. All steel to be bolted.  
 6. All steel to be riveted.  
 7. All steel to be welded.  
 8. All steel to be bolted and riveted.  
 9. All steel to be bolted and welded.  
 10. All steel to be bolted, riveted and welded.

NAME PLATE FOR  
 RAILROAD OVERHEAD  
 STANDARD 1961

**CURVE DATA FOR PROPOSED NORTH PAVEMENT.**  
 $\Delta = 66^\circ 40'$   
 $T = 334.6'$   
 $R = 508.7'$   
 $L = 591.9'$   
 $E = 400.8'$   
 $D = 12.073'$   
 $SE = 0.02\%$   
 ATTAIN SUPERELEVATION  
 STA. 3415+63 - 3416+73  
 STA. 3475+63 - 3474+53

**SURVEYED CURVE DATA**  
 $\Delta = 66^\circ 40'$   
 $T = 332.5'$   
 $R = 505.5'$   
 $L = 588.2'$   
 $E = 99.5'$   
 $D = 10.08'$

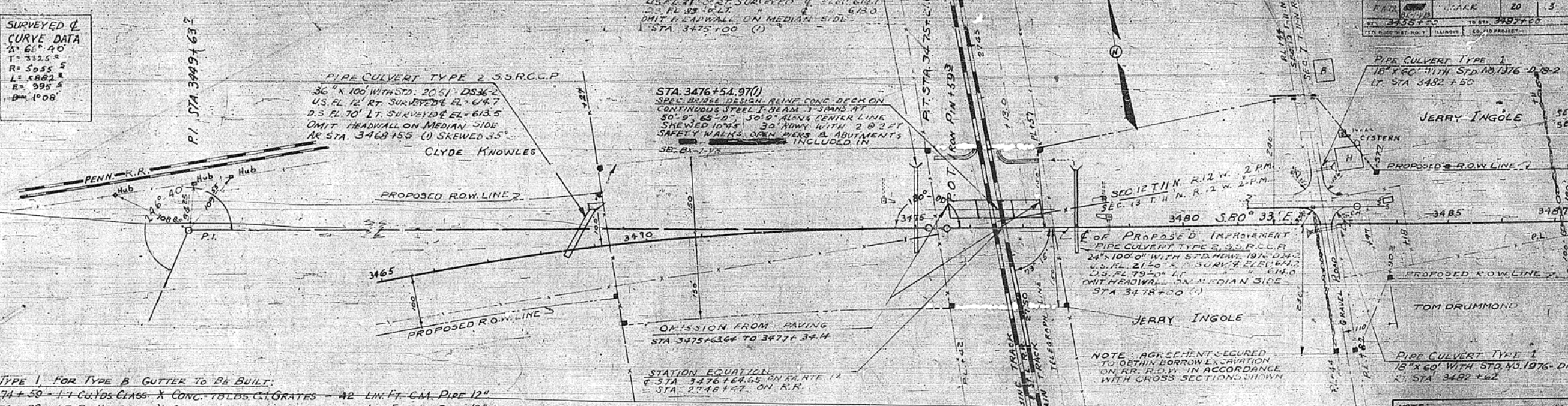
SEC. 12 T-11-N-R-12-W-2-P.M.

**PIPE CULVERT TYPE 2 33" R.C.C.P.**  
 24" x 104" WITH STD. HDWL 107-1034-2  
 U.S. FL. 12' RT. SURVEYED EL. 616.1  
 D.S. FL. 10' LT. SURVEYED EL. 613.0  
 OMIT HEADWALL ON MEDIAN SIDE  
 STA. 3475+00 (1)

**PIPE CULVERT TYPE 2 33" R.C.C.P.**  
 36" x 100" WITH STD. 2051 DS36-2  
 U.S. FL. 12' RT. SURVEYED EL. 614.7  
 D.S. FL. 10' LT. SURVEYED EL. 613.5  
 OMIT HEADWALL ON MEDIAN SIDE  
 KR STA. 3468+55 (1) SKEWED 35°

**STA. 3476+54.97(1)**  
 SPEC. BRIDGE DESIGN. R.I.NE CONC. DECK ON  
 CONTINUOUS STEEL I-BEAM 3 SPANS AT  
 50'-9", 65'-0", 50'-9" ALONG CENTER LINE  
 SKEWED 105° 30' FROM MAIN LINE  
 SAFETY WALKS ON ABUTMENTS  
 INCLUDED IN  
 SEC. BX-1-VB

PROJECT NO.	SHEET NO.	TOTAL SHEETS
3435	20	30



**OUTLETS TYPE I FOR TYPE B GUTTER TO BE BUILT:**  
 14' LT. STA. 3474+50 - 1.1 CU. YDS. CLASS X CONC. 78 LBS. CI. GRATES - 42 LIN. FT. CM. PIPE 12"  
 4' LT. STA. 3478+32 - 1.7 CU. YDS. CLASS X CONC. 78 " " " " - 38 LIN. FT. CM. PIPE 12"  
 20' LT. STA. 3478+36 - 1.7 CU. YDS. CLASS X CONC. 78 " " " " - 41 LIN. FT. CM. PIPE 12"  
 TOTAL 5.1 " " " " " " " " - 121 " " " " "

**NOTE: STD. 1908 METHOD I TO BE BUILT.**  
 L STA. 3475+41.36 TO STA. 3475+63.64  
**QUANTITIES:**  
 PCC PVT. 16 1/2" - 10 1/2" - 16 1/2" = 59 SQ. YDS.  
 REINFORCEMENT BARS = 3507 LBS.  
 CLASS X CONC. TRANSITION CURB = 9.7 CU. YDS.  
 SEE BRIDGE PLANS FOR JOINT AT ABUTMENT

**NOTE: STD. 1908 METHOD I TO BE BUILT.**  
 L STA. 3477+34.14 TO STA. 3477+56.42  
**QUANTITIES:**  
 PCC PVT. 16 1/2" - 10 1/2" - 16 1/2" = 59 SQ. YDS.  
 REINFORCEMENT BARS = 3507 LBS.  
 CLASS X CONC. TRANSITION CURB = 9.7 CU. YDS.  
 SEE BRIDGE PLANS FOR JOINT AT ABUTMENT

**CONCRETE GUTTER TYPE B TO BE BUILT:**  
 20' LT. STA. 3469+00 - 3471+25 - 225 LIN. FT.  
 20' LT. STA. 3471+49 - 3474+50 - 310 LIN. FT.

**STD. OUTLET FOR TYPE B GUTTER TO BE BUILT:**  
 20' LT. STA. 3471+49 - 5.5 CU. YDS. CLASS X CONCRETE

SEC. 13 T-11-N-R-12-W-2-P.M.

PAVED DITCH TYPE 2 TO BE BUILT:  
 L STA. 3475+30 TO 3476+10 = 80 LIN. FT.  
 L STA. 3476+60 TO 3477+30 = 70 " "  
 TOTAL = 150 " "

**APPROACHES TO BE BUILT:**  
 LT. STA. 3482+62 30' ROADBED 5.5% GRADE  
 EARTHWORK INCLUDED IN QUANTITIES LISTED

**EARTH EXCAVATION:** 1780 CU. YDS.  
**BORROW EXCAV.** 1112 " (BX-1)  
**BORROW** 390 " (BX-4-VB)  
**EMBANKMENT** 390 " (BX-1-VB)  
**EMBANKMENT** 310 " (BX-1)

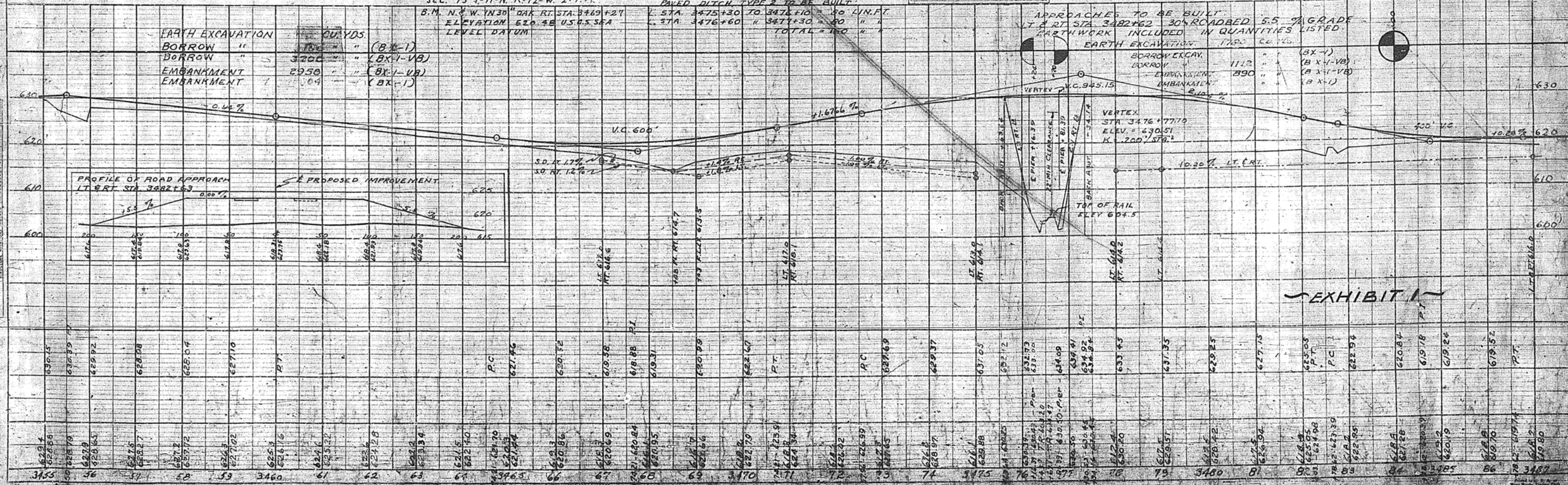


EXHIBIT A

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

ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 12	BX-1VB	Clark	20	4
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

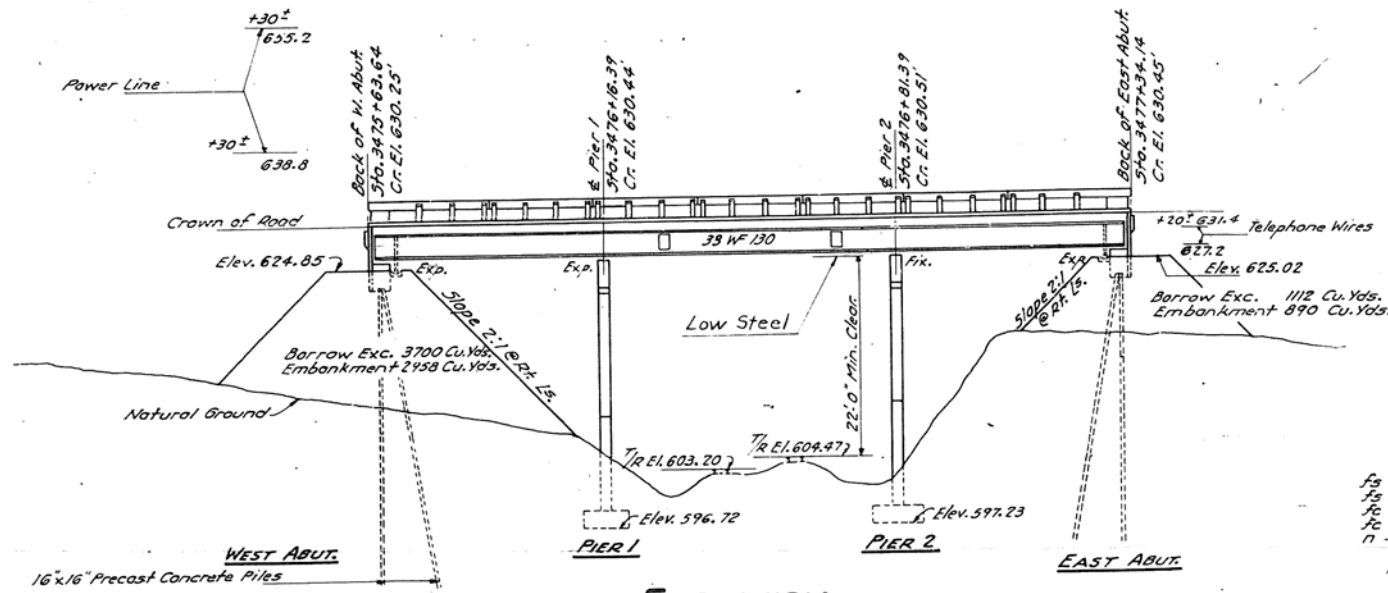
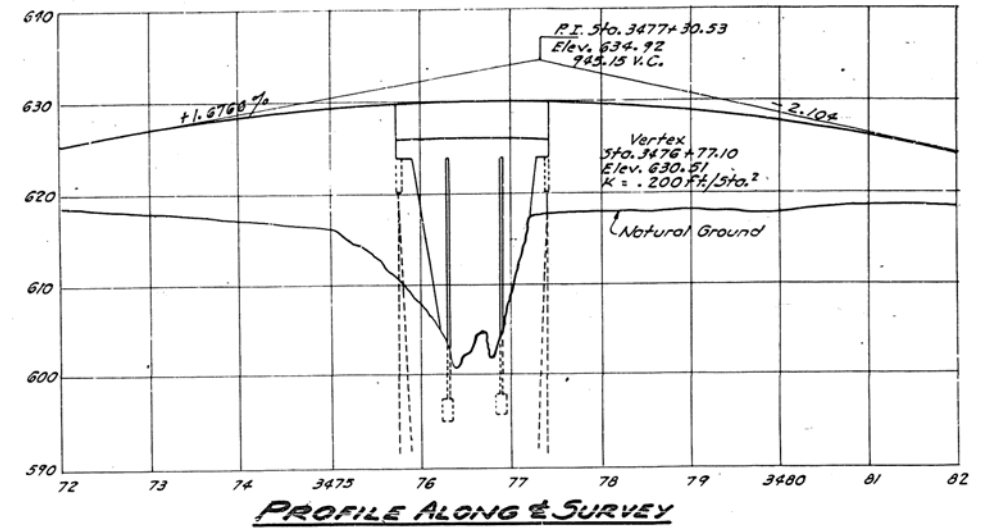
SHEET NO. 1  
12 SHEETS.

B.M. N.E.W. in 30' Oak  
R.F. Sta. 3449+27  
Elev. 620.48

No Existing Structure

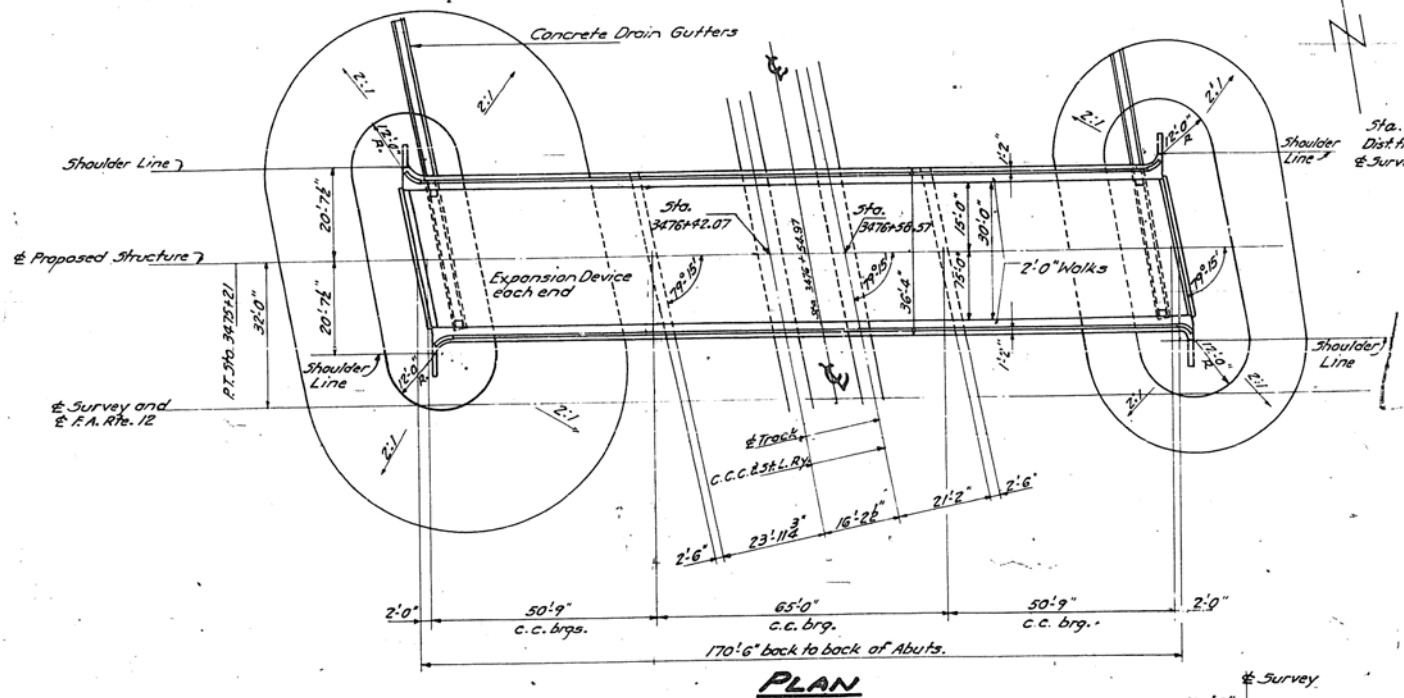
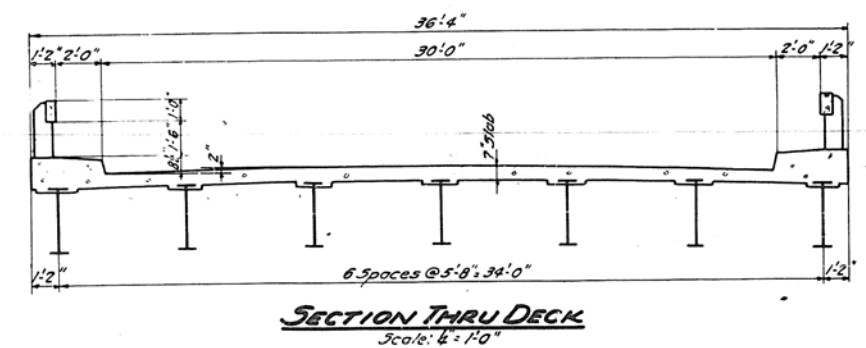
CURVE DATA FOR SURVEYED E

Δ	66° 40'
T	3325.0'
R	5055.5'
L	5882.3'
E	995.5'
O	1° 00'
S.E.	0.25% / ft
P.I.	Sta. 3449+63.7



BASIS OF DESIGN

F <sub>s</sub>	18000 psi	Structural Steel
F <sub>r</sub>	20000 psi	Reinforcement Bars
F <sub>c</sub>	1400 psi	Superstructure
F <sub>s</sub>	800 psi	Substructure
n	10	
Loading: H-20-5-16-44		
16x16 Precast Concrete Piles		
35 Tons (Max.)		

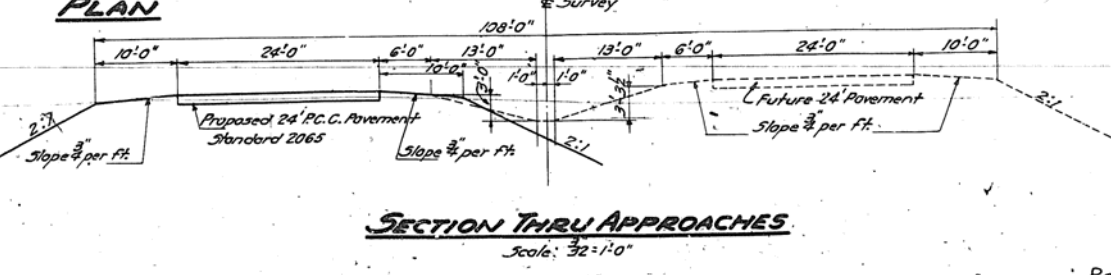


Sta. Dist from E. Survey	3475+65 32' Lt.	3475+77 32' Rt.	3475+84 32' Lt.	3476+22 40' Lt.	3476+26 18' Lt.	3476+76 44' Lt.	3476+80 18' Lt.	3477+15 18' Lt.	3477+11 49' Lt.
Elev.	617.2	617.1	617.5						617.5
Soil Description	Light brown soft silty clay	Soft brown silty clay	Light brown soft silty clay	Mottled soft sandy clay	Mottled soft sandy clay	Mottled soft sandy clay	Mottled soft sandy clay	Mottled soft sandy clay	Yellow silty clay firm
Elev.	612.0	612.0	611.0	608.0	607.0	607.0	607.0	607.0	606.0
Soil Description	Mottled soft and slightly sandy clay	Mottled soft slightly sandy clay	Mottled soft sandy clay	Brown mottled soft to med. sandy clay	Mottled brown soft to med. sandy clay	Mottled brown soft to med. sandy clay	Mottled brown soft to med. sandy clay	Mottled brown soft to med. sandy clay	Yellow silty clay firm
Elev.	608.0	608.0	607.0	603.0	602.0	602.0	602.0	602.0	602.5
Soil Description	Stiff gray silty clay	Stiff gray silty clay	Stiff gray silty clay	Stiff gray silty clay	Stiff gray silty clay	Stiff gray silty clay	Stiff gray silty clay	Stiff gray silty clay	Yellow silty clay firm
Elev.	599.0	599.0	599.0	596.0	596.0	596.0	596.0	596.0	596.0
Soil Description	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Yellow silty clay firm
Elev.	592.0	593.0	593.0	592.0	592.0	592.0	592.0	592.0	592.0
Soil Description	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Yellow silty clay firm
Elev.	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
Soil Description	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Yellow silty clay firm
Elev.	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
Soil Description	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Stiff to very stiff gray silty clay	Yellow silty clay firm

BORING DATA

Boring data are given only as a guide to bidders in estimating soil conditions which may be encountered in the field.

STA. 3476+54.97(1)  
GENERAL PLAN & ELEVATION  
C.C.C. & ST. L. RY. OVERHEAD  
N.E. OF MARSHALL  
F.A. RTE. 12 - SEC. BX-1VB  
PROJECT FGL-9 (30)  
CLARK COUNTY



Revised for elimination of Blast Plates. G.S.H. 5-26-52

COMPUTED	H.M.	EXAMINED	Feb 18 1952
CHECKED	W.H. Sommer	DESIGNED BY	W.E. Howard
DRAWN	R. & H. Miller	CHECKED	C.L. Howard
CHECKED	W.H.S.	APPROVED	J.A. Barker
SPECIAL	ASSEMBLED		
	CHECKED		

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

ROAD ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 12	BX-1VB	Clark	20	5
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		12 SHEETS

C.C.C. & ST. L. RY.  
BUILT 195 BY  
STATE OF ILLINOIS  
FA. RT. 12 SEC. BX-1VB  
F.A. PROJ. F&I-9 (RD) STA. 3476+54.97  
LOADING 1120-516

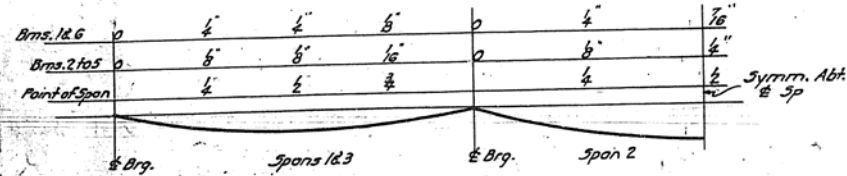
LETTERING ON NAME PLATE  
For detail of type letters, location on structure  
etc., see Standard 1961

TOTAL BILL OF MATERIAL

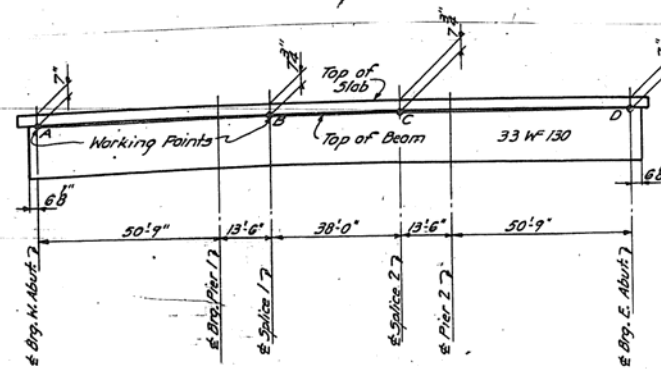
ITEM	Sec. BX-1VB
Handrail Concrete	Cu. Yds. 11.4
Class-X Concrete	Cu. Yds. 407.9
* Reinforcement Bars	Lbs. 54070
Structural Steel	Lbs. 192,060
Cast Iron Frames and Gates	Each 4
16"x16" Precast Concrete Piles - 26'0" long	Lin. Ft. 312
16"x16" Precast Concrete Test Piles	Each 2
Name Plates	Each 1
Borrow Excavation	Cu. Yds. 4.812
Class-A Excavation for Structures	Cu. Yds. 226

GENERAL NOTES

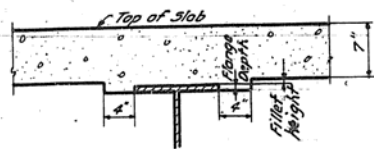
Class-X Concrete shall be used throughout except as noted.  
The concrete floor shall be finished according to Art. 61.3(2) of the Standard Specifications.  
Longitudinal construction joints in the floor slab may be located as shown on Sheet 3.  
No additional construction joints will be permitted without the written permission of the Engineer.  
The concrete floor shall be poured continuously between the joints shown.  
Pre-molded joint filler shall be in accordance with Art. 115.67 of the Standard Specifications.  
The cost of the filler shall be included in the unit price bid for Class-X Concrete.  
All field connections shall be riveted except as noted. Rivets & except as noted.  
All I-Beams shall be shop assembled to their proper grade and alignment with or without shop coats. The splices shall be sub-punched 1/8" reamed to size and match marked.  
The assembled units shall be inspected before reaming.  
All structural steel shall be inspected by the Illinois Division of Highways before painting.  
Structural steel shall be given one shop coat of red lead paint and two field coats of paint. The first field coat shall be tinted red lead and the second field coat shall be black graphite. All paint shall be furnished and applied by the Contractor.  
The Embankment shall be built according to Sec. 16 of the Standard Specifications before the Superstructure is placed.  
All welds shall be 3/8" continuous fillet welds unless otherwise noted.  
For shipment of Structural Steel bolt flange splice plates flush with end of beam.  
Test Piles shall be driven at locations so as to be used in the structure as directed by the Engineer.  
\* All bars shall be round ASTM A305-49. The size number is the number of 8 in the nominal diameter.



DEAD LOAD DEFLECTION DIAGRAM



WORKING POINTS OF BEAMS



DETAIL OF CONC. FILLET

After Structural Steel has been erected elevations of the top flanges of the beams shall be taken at intervals not to exceed 10 ft. From these elevations subtract the increment of deflection for these points determined from the Dead Load Deflection Diagram. The elevations so obtained subtracted from the theoretical grade elevations minus floor thickness of 7" equals the fillet heights.

ELEVATION OF WORKING POINTS

Working Point	A	B	C	D
1	629.525	629.613	629.661	629.673
2	629.597	629.709	629.755	629.765
3	629.661	629.791	629.836	629.843
4	629.679	629.819	629.862	629.866
5	629.651	629.795	629.837	629.839
6	629.574	629.717	629.757	629.756
7	629.486	629.625	629.663	629.657

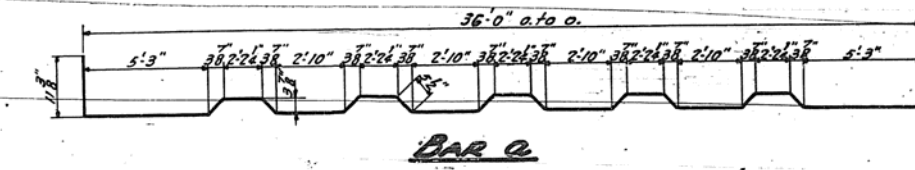
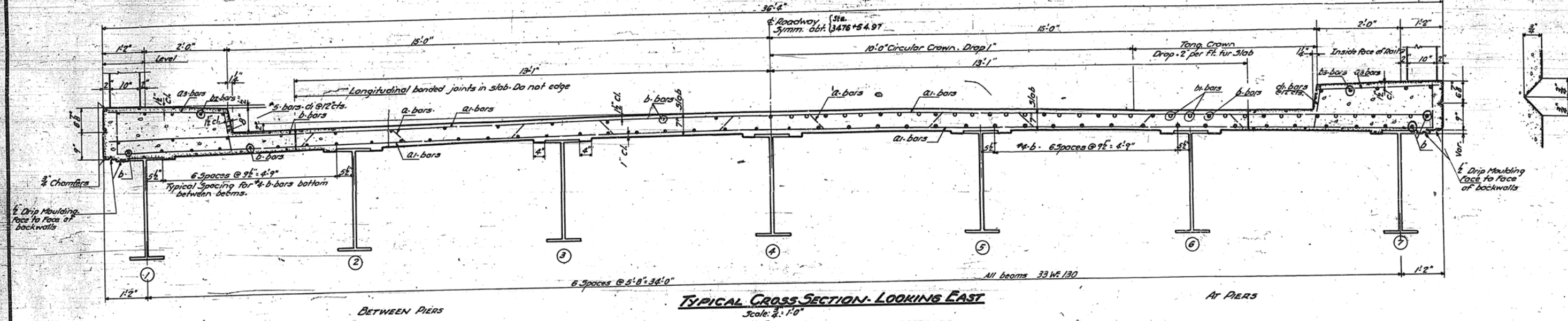
COMPUTED	H.M.
CHECKED	R.D.
DRAWN	R.B.D. <i>in fillet</i>
CHECKED	W.M. Sommer
ASSEMBLED	
CHECKED	

EXAMINED Feb 18 1952  
W.E. Hansen  
BRIDGE ENGINEER  
PASSED E.L. Shultz  
APPROVED J.M. Barber  
CHIEF HIGHWAY ENGINEER

STA. 3476+54.97(1)  
DETAILS  
C.C.C. & ST. L. RY. OVERHEAD  
N.E. OF MARSHALL  
FA. RTE. 12 - SEC. BX-1VB  
PROJECT F&I-9 (RD)  
CLARK COUNTY

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

ROAD DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
FA 12	BX-1VB	Clark	20	6	12 SHEETS
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

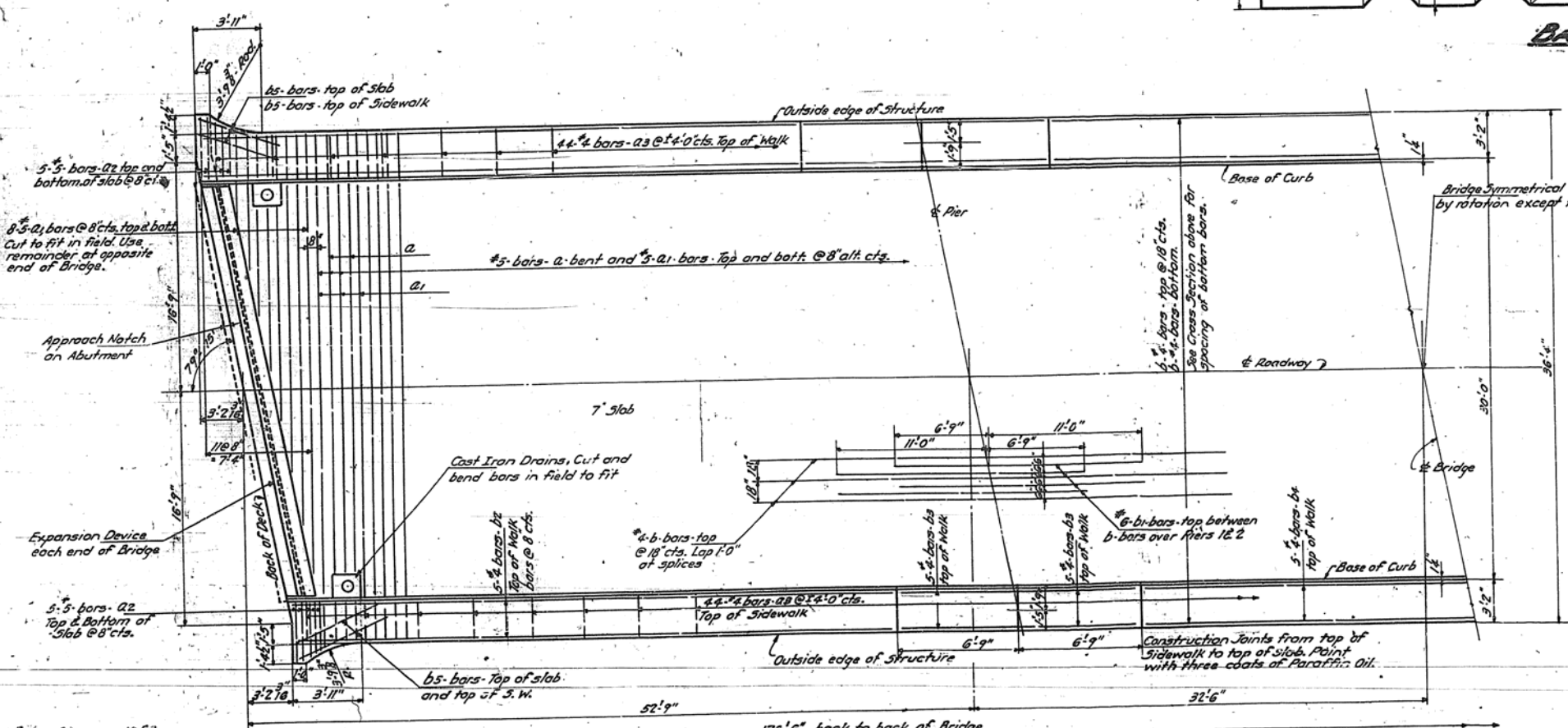


**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a	725	1/2"	39'3"	
a1	266	1/2"	36'0"	
a2	40	1/2"	4'0"	
a3	88	1/2"	2'7"	
b	483	1/2"	24'9"	
b1	96	1/2"	17'9"	
b2	40	1/2"	23'3"	
b3	40	1/2"	6'6"	
b4	20	1/2"	26'0"	
b5	18	1/2"	4'6"	
d1	340	3"	11'0"	

Class-X Concrete Cu. Yds. 172.8  
Reinforcement Bars Lbs. 27520  
Structural Steel Lbs. 176550

\* Does not include weight of bearing plates, base plates or expansion devices.



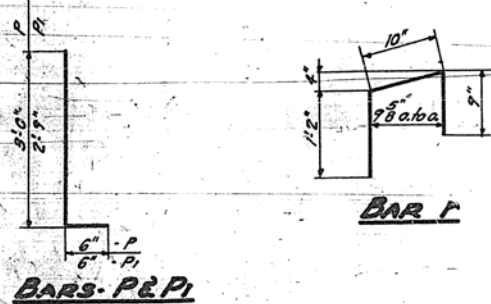
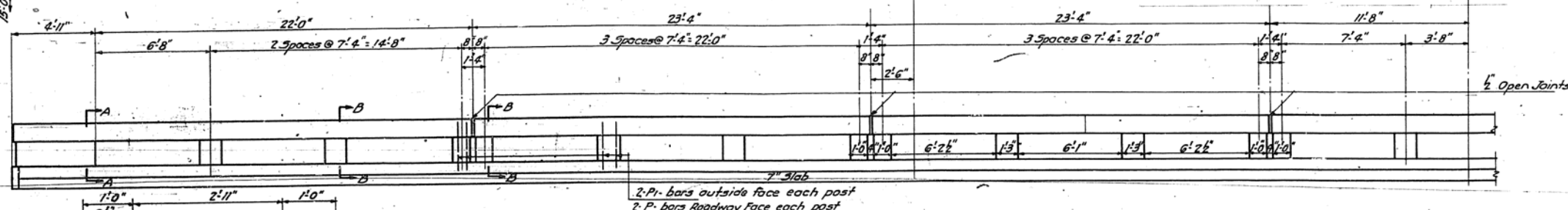
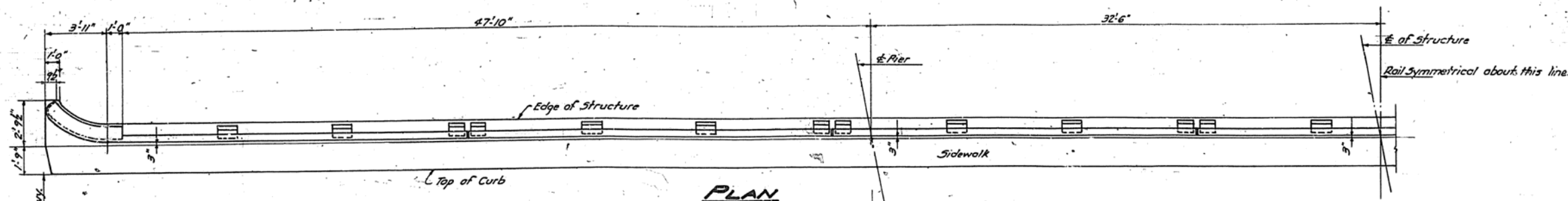
**HALF PLAN OF DECK**  
Railing not shown, see sheet 4 for details  
Scale: 1/16" = 1'-0"

COMPUTED	H.M.	EXAMINED	Feb 13 1952
CHECKED	R.D.	W. E. Hansen	BRIDGE ENGINEER
DRAWN	R.D.	Ed. Hunt	CHIEF ENGINEER
CHECKED	W. H. Sommer	F. A. Barber	CHIEF HIGHWAY ENGINEER
SPECIAL	ASSEMBLED		
	CHECKED		

STA. 3476+54.97(1)  
DECK  
C.C.C. & ST. L. RY. OVERHEAD  
N.E. OF MARSHALL  
F.A. RTE. 12 - SEC. BX-1VB  
PROJECT F.G. 9 (90)  
CLARK COUNTY

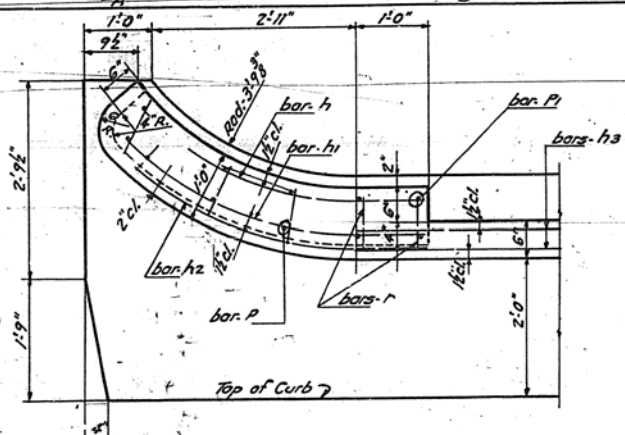
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

ROAD DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
FA 12	BX-1VB	Clark	20	7	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

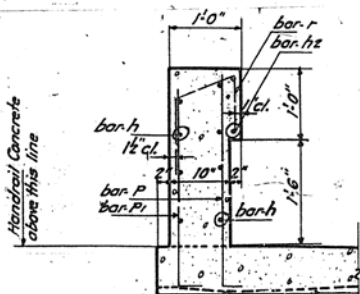


**BAR P**

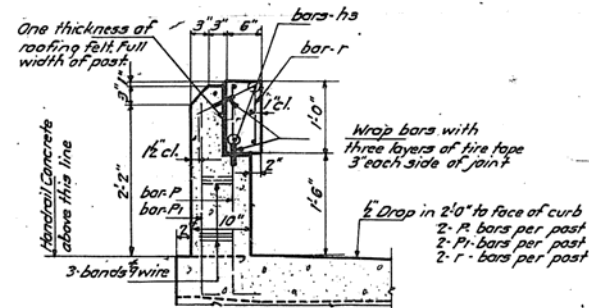
**BARS P & Pi**



**DETAIL OF END POST**



**SECTION A-A**



**SECTION B-B**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h	16	5	4'-6"	—
hi	16	5	4'-9"	—
h2	8	5	5'-0"	—
hs	56	5	23'-0"	—
P	120	5	3'-6"	┐
Pi	120	5	3'-3"	┐
r	120	2	2'-9"	┐
Reinforcement Bars				Lbs. 2890
Handrail Concrete				Cu. Yds. 11.4

Note:  
The cost of #9 Wire, Roofing felt and fire tape shall be included in the contract unit price for Handrail Concrete.

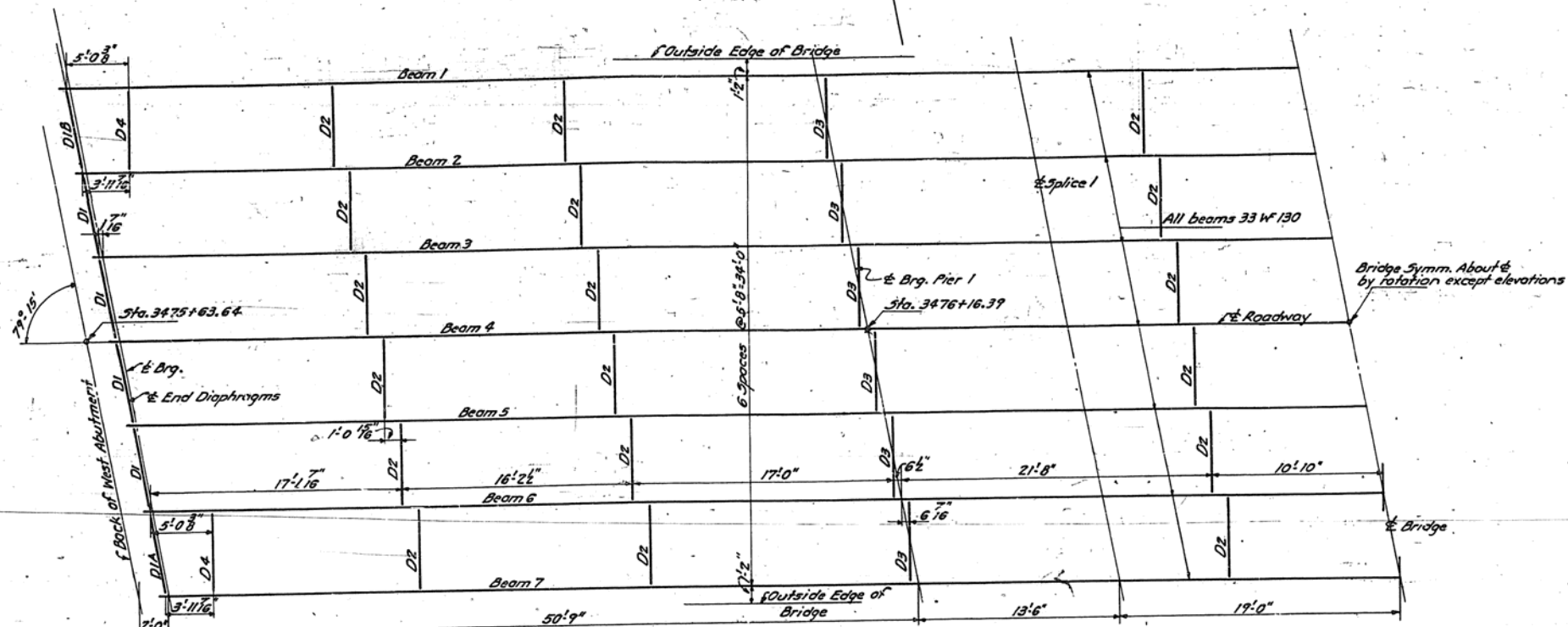
STANDARD	COMPUTED	<i>H. S. Harris</i>
	CHECKED	<i>W. H. Sommer</i>
	DRAWN	<i>H. S. Harris / Miller</i>
	CHECKED	<i>W. H. Sommer</i>
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED	<i>Feb 18 1952</i>
	<i>W. E. Hansen</i>
PASSED	<i>E. L. Thompson</i>
APPROVED	<i>J. N. Barker</i>

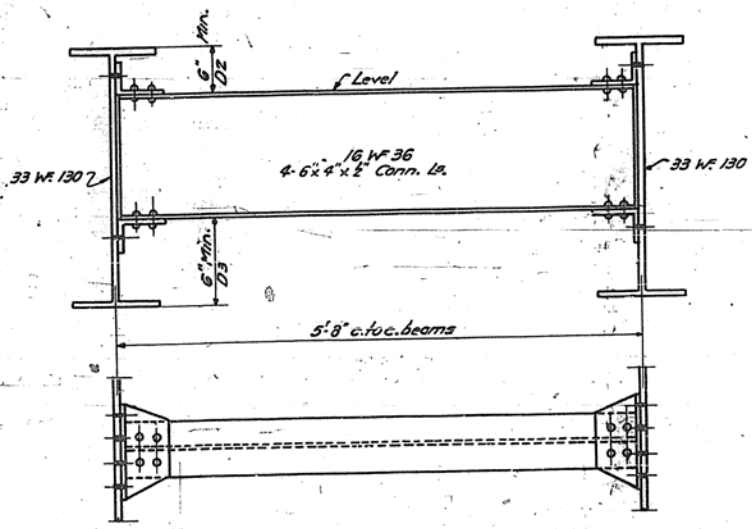
STA. 3476+54.97(1)  
**HANDRAIL**  
**C. C. & ST. L. RY. OVERHEAD**  
**N. E. OF MARSHALL**  
**F.A. RTE. 12 ~ SEC. BX-1VB**  
**PROJECT F.G.I-9 (80)**  
**CLARK COUNTY**

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

ROAD ISSUE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
FA. 12	BX-IVB	Clark	20	8	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

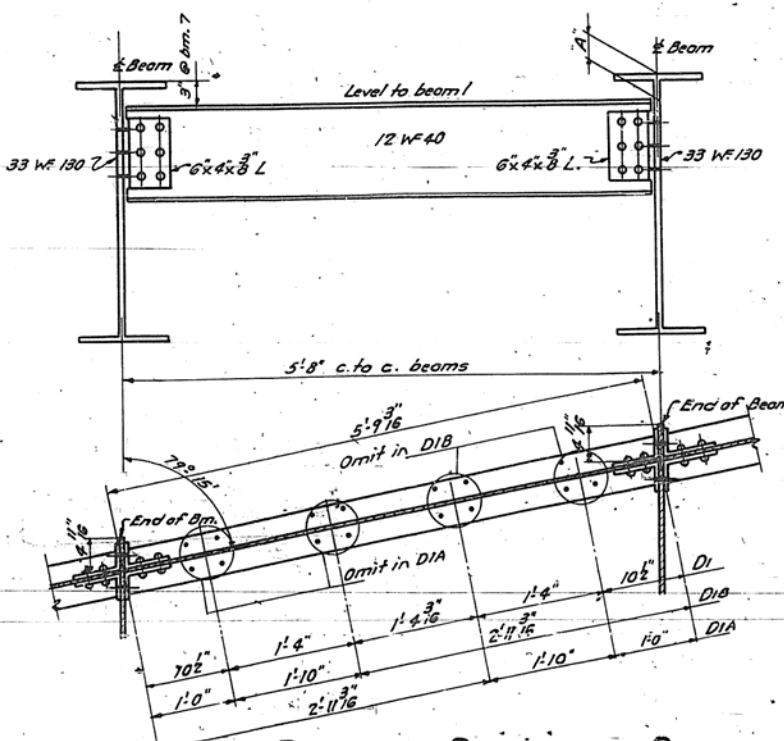


**HALF STEEL FRAMING PLAN**  
Scale: 1/8" = 1'-0"



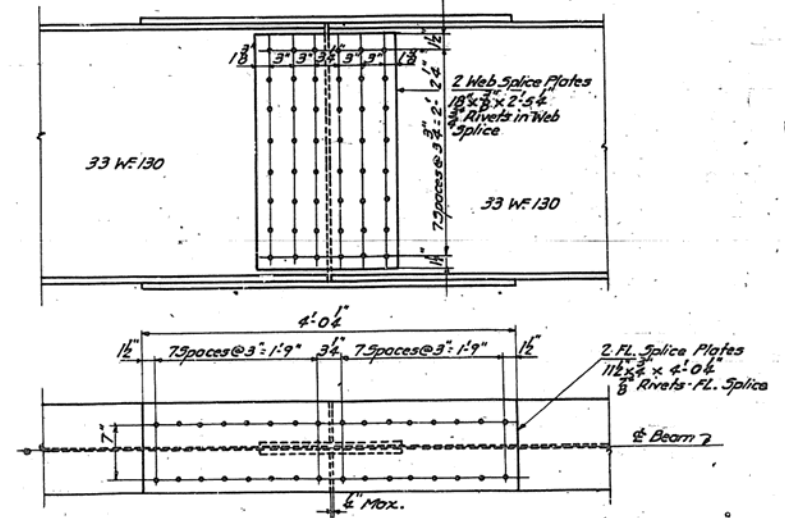
**DETAIL OF DIAPHRAGMS D2 & D3**  
Scale: 1/2" = 1'-0"

36 - D2 Req'd.  
12 - D3 Req'd.  
Scale: 1/2" = 1'-0"



**DETAIL OF DIAPHRAGM D1**  
Scale: 1/2" = 1'-0"

8 - D1 - Req'd.  
2 - D1A - Req'd.  
2 - D1B - Req'd.  
Scale: 1/2" = 1'-0"



**DETAIL OF BEAM SPLICES**  
Scale: 1/2" = 1'-0"

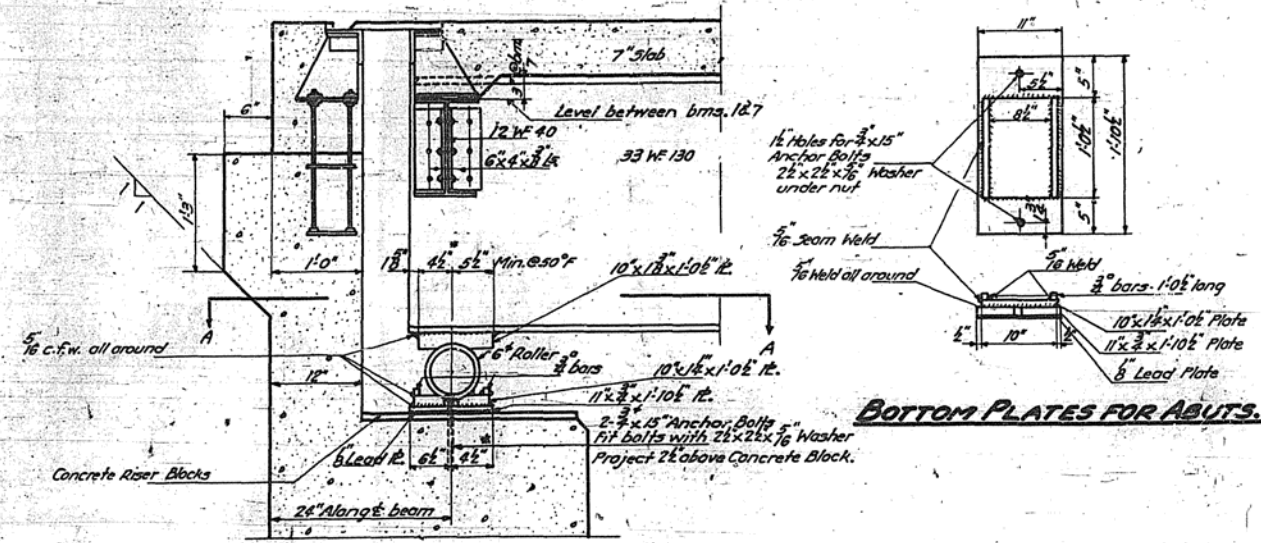
Beam No.	1	2	3	4	5	6	7
W. Abut.	3 1/8"	4 7/8"	5 8"	5 7/8"	5"	4 1/8"	3"
E. Abut.	3 8"	4 4"	5 7/8"	5 1/2"	5 8"	4 7/8"	3"

COMPUTED	H.M.
CHECKED	R.D.
DRAWN	R.D. Miller
ASSEMBLED	W.D. Sommer
CHECKED	

EXAMINED Feb 18 1952  
W. E. Harrison  
BRIDGE ENGINEER  
PASSED  
APPROVED J. H. Barker  
ENR. HIGHWAY ENGINEER

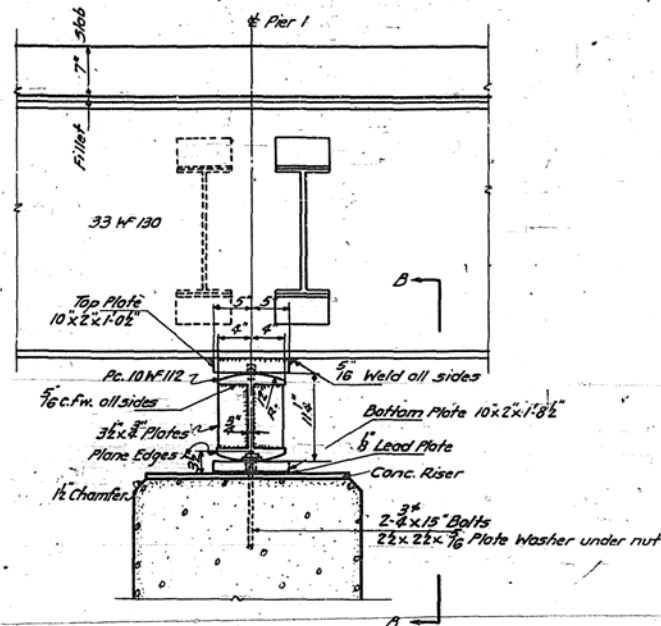
STA. 3476+54.97(1)  
STEEL FRAMING PLAN  
C. C. & ST. L. RY. OVERHEAD  
N. E. OF MARSHALL  
FA. RTE. 12 - SEC. BX-IVB  
PROJECT FG-9 (30)  
CLARK COUNTY



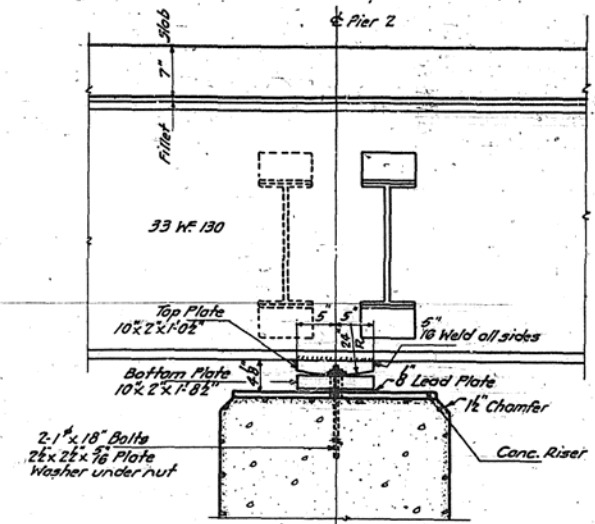


**SECTION AT EAST AND WEST ABUTMENTS**

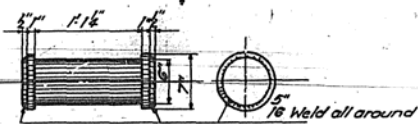
Note to Erector  
\* Dimensions thus marked are to be used for air temperature of 50°F. They are to be changed 1/8\"/>



**BEARING DETAIL PIER 1**

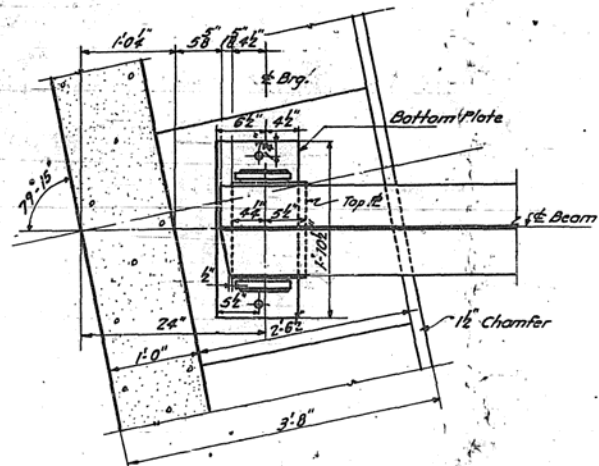


**BEARING DETAIL PIER 2**

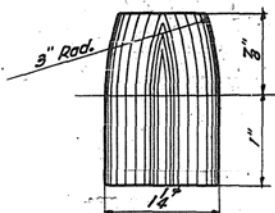


**DETAIL OF ROLLER**

1/4\"/>

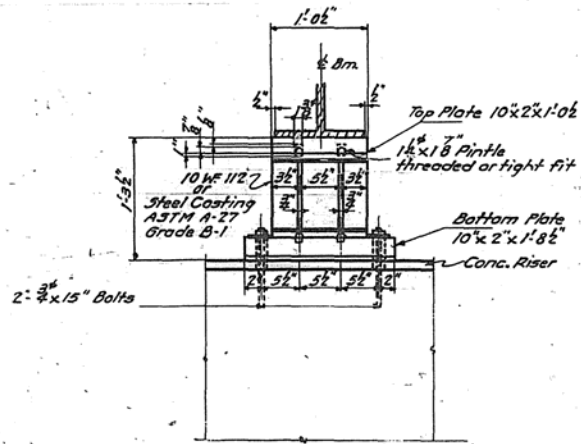


**SECTION A-A**



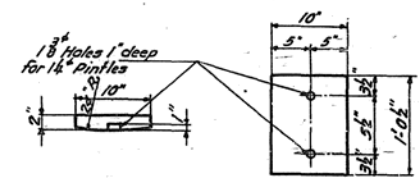
**DETAIL OF PINTLE**

1/2\"/>



**SECTION B-B PIER 1**

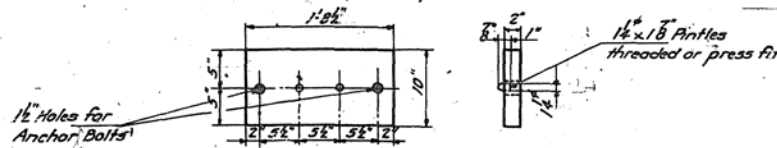
Rocker may be built up Section or Steel Casting. Make thickness of Stiffeners and Web 1\"/>



**TOP PLATE PIER 2**

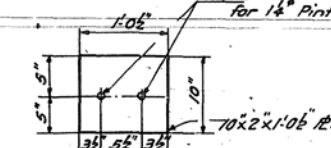
7\"/>

For all Plates in contact with rollers the edges adjacent to the collars shall be rolled cut square or finished. Weight of lead plates and rockers is included in Structural Steel. Payment for same will be made of the contract unit price for Structural Steel. Estimated weight of rollers, rockers and plates included in Bill of Material, on Sheet 2 is 8390 lbs.



**BOTTOM PLATES PIERS 1 & 2**

1/4\"/>



**TOP PLATE PIER 1**

7\"/>

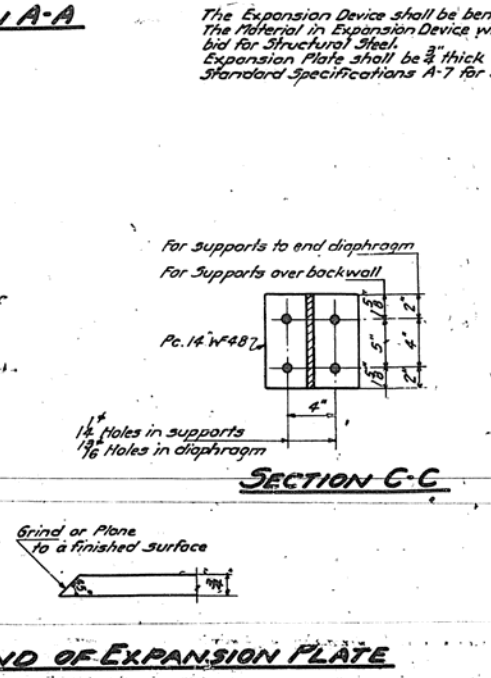
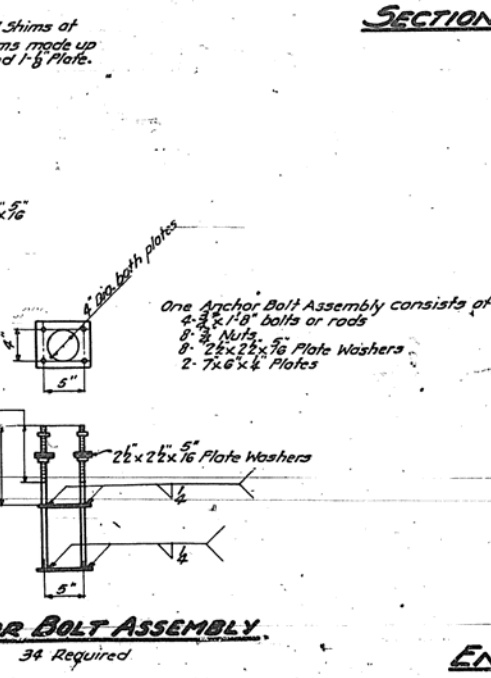
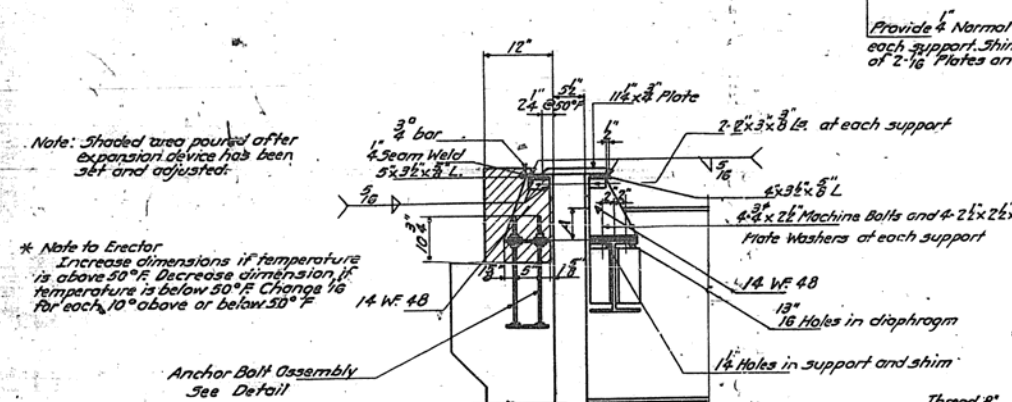
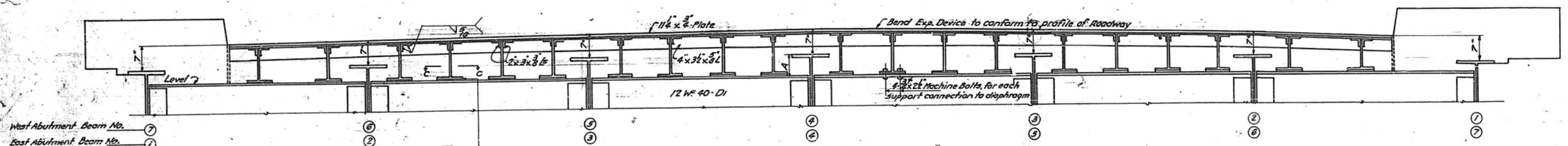
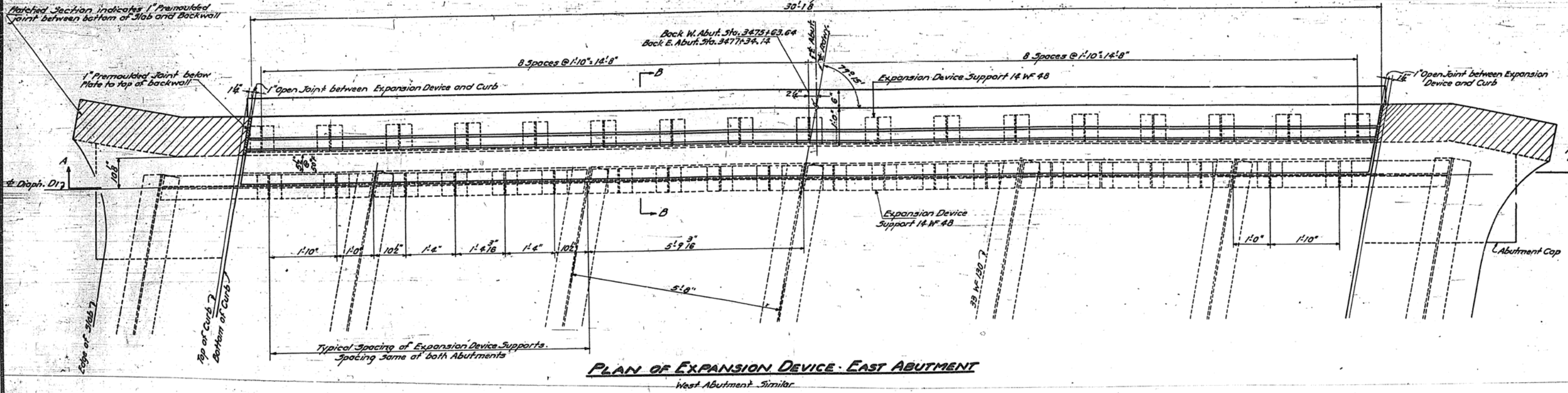
STANDARD	COMPUTED	A.M.
	CHECKED	R.D.
	DRAWN	R.D. M. Miller
	CHECKED	W.H.S. Sommer
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED	Feb. 18	1952
	W. E. Hansen	BRIDGE ENGINEER
PASSED	E. H. ...	
APPROVED	J. N. ...	CIVIL ENGINEER

STA. 3476+54.97(1)  
**BEARING DETAILS**  
C.C.C. E. ST. L. RY. OVERHEAD  
N. E. OF MARSHALL  
FA. RTE. 12 - SEC. BX-1VB  
PROJECT FGI-9 (80.)  
CLARK COUNTY

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

ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. OF SHEETS
F.A. 12	BX-1VB	Clark	20	11	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



The Expansion Device shall be bent to conform to pavement surface. The Material in Expansion Device will be paid for at the unit price bid for Structural Steel. Expansion Plate shall be 3/8 thick and shall conform to the ASTM Standard Specifications A-7 for Structural Steel.

**BILL OF MATERIAL**  
Structural Steel 7120 Lbs.

**"DIMENSION A"**

Beam No.	1	2	3	4	5	6	7
West Abut.	36	48	58	58	5	46	3
East Abut.	38	48	56	58	58	46	3

Note: Shaded area poured after expansion device has been set and adjusted.

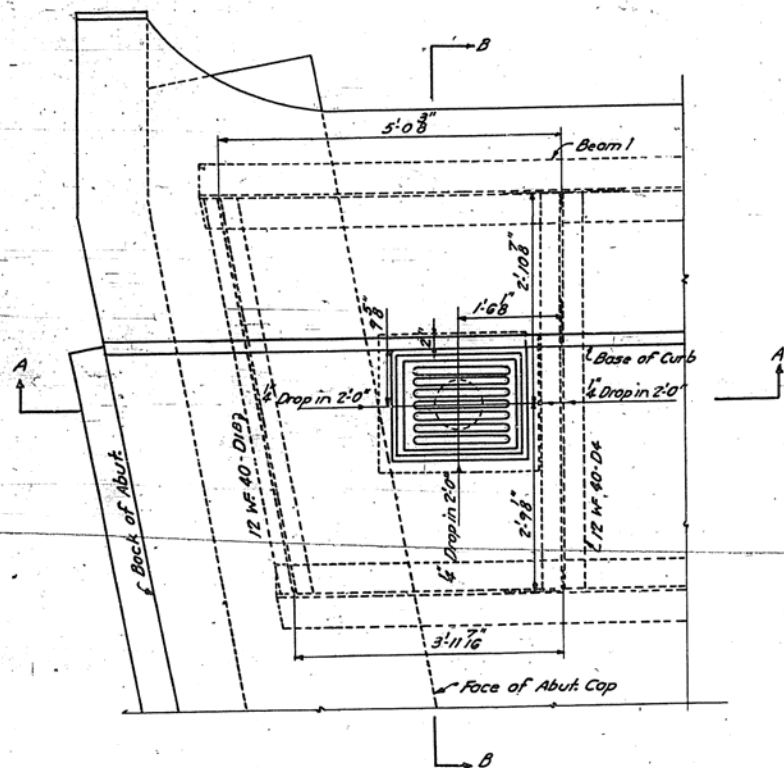
\* Note to Erector  
Increase dimensions if temperature is above 50°F. Decrease dimension if temperature is below 50°F. Change 1/8 for each 10° above or below 50°F.

COMPUTED	J. S. Harris	EXAMINED	Feb 19 19 52
CHECKED	W. T. Sommer	BRIDGE ENGINEER	
DRAWN	J. S. Harris & M. Miller	PASSED	
CHECKED	W. T. Sommer	APPROVED	J. N. Parker
SPECIAL	ASSEMBLED		
	CHECKED		

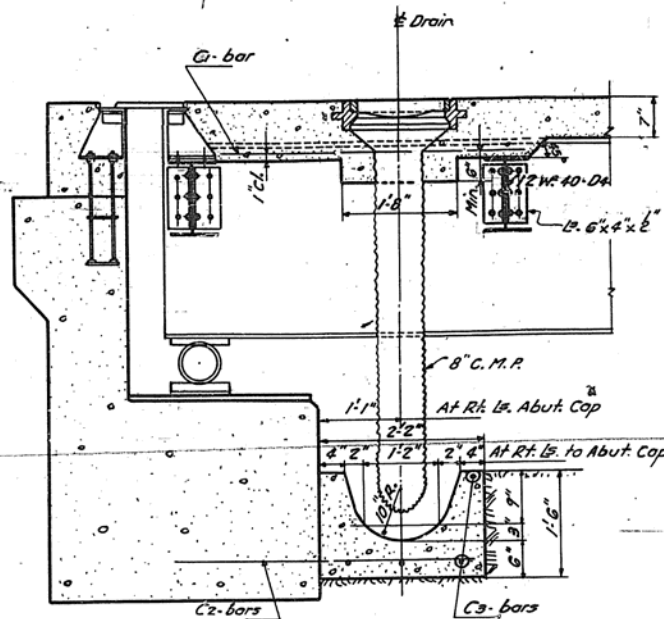
STA. 3476+54.97 (1)  
**EXPANSION DEVICE**  
C.G.C. & ST. L. RY. OVERHEAD  
N.E. OF MARSHALL  
F.A. RT. 12 - SEC. BX-1VB  
PROJECT F61-9 (80)  
CLARK COUNTY

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

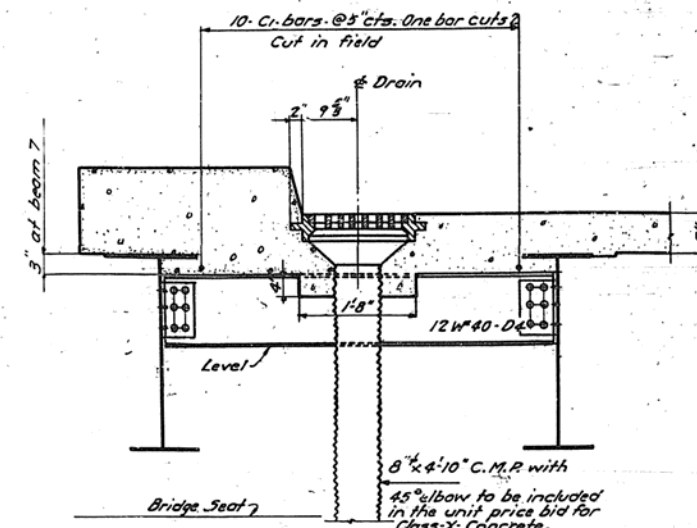
BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 9
F.A. 12	BX-IVB	Clark	20	12	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	F.L.W. AID PROJECT			



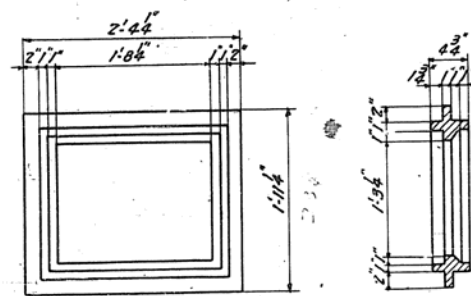
**PLAN OF CATCH BASIN AND FRAMING**  
4 Req'd.



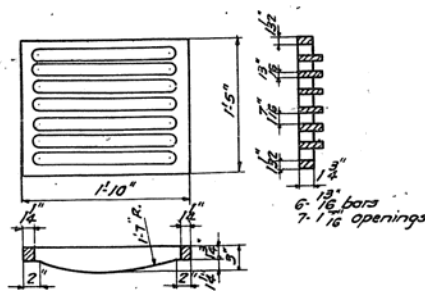
**SECTION A-A**



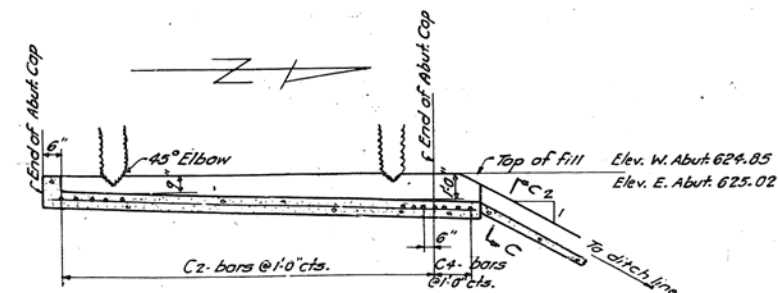
**SECTION B-B**



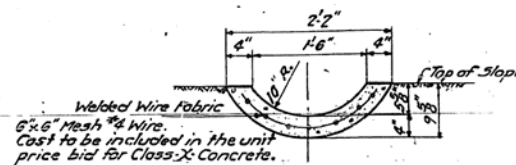
**DETAIL OF CAST IRON FRAME**  
4 Req'd. Weight 200 Lbs. each



**DETAIL OF CAST IRON GRATE**  
4 Req'd. Weight 115 Lbs. each



**SECTIONAL ELEVATION OF DRAINAGE ALONG ABUT. CAP**



**SECTION C-C**

**BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
C1	20	5	12'-0"	—
C2	80	4	2'-0"	—
C3	20	4	26'-0"	—
C4	28	4	1'-9"	—
Class-X Concrete		Cu. Yds.	11.0	
Reinforcement Lira		Lbs.	840	
C.I. Frames & Grates		Each	4	

All bars shall be round ASTM 305-49  
The size number is the number of 8 inches in the nominal diameter.

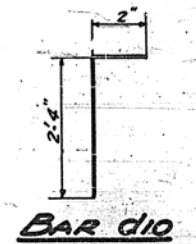
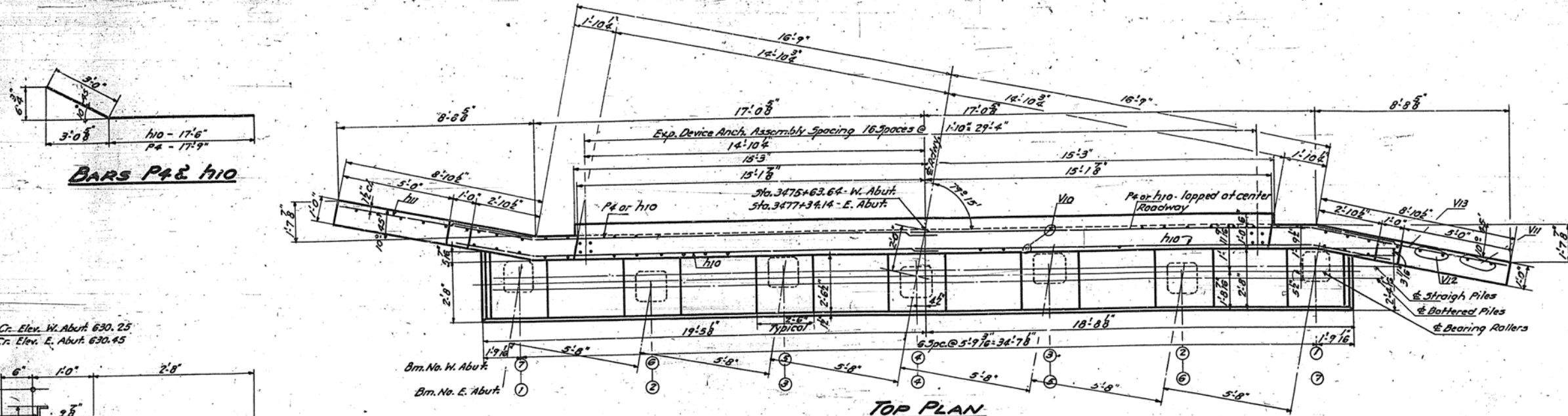
COMPUTED	<i>J. S. Harris</i>
CHECKED	<i>W. M. Sommer</i>
DRAWN	<i>J. S. Harris &amp; Miller</i>
CHECKED	<i>W.M.S.</i>
SPECIAL	
ASSEMBLED	
CHECKED	

EXAMINED	<i>F. B. B.</i>	1952
PASSED	<i>W. E. Hanson</i>	BRIDGE ENGINEER
APPROVED	<i>J. N. Barker</i>	CHIEF HIGHWAY ENGINEER

STA. 3476+54.97(1)  
**DRAINAGE DETAILS**  
C.C.C. E. ST. L. RY. OVERHEAD  
N.E. OF MARSHALL  
F.A. 12 - SEC. BX-IVB  
PROJECT F.G.I. 9 (80)  
CLARK COUNTY

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

ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 12	BX+VB	Clark	20	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

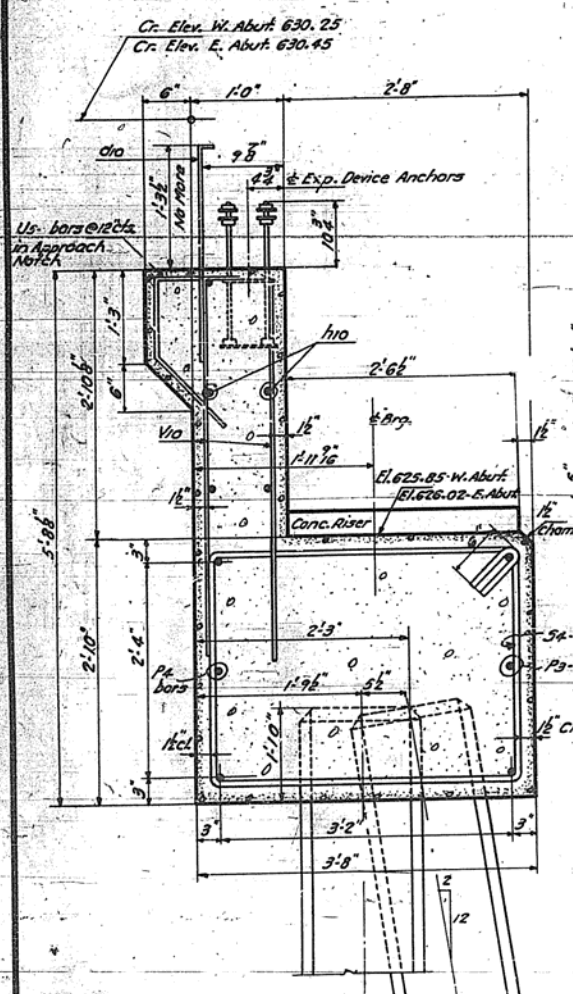


TOP PLAN

BILL OF MATERIAL - 2 ABUTMENTS

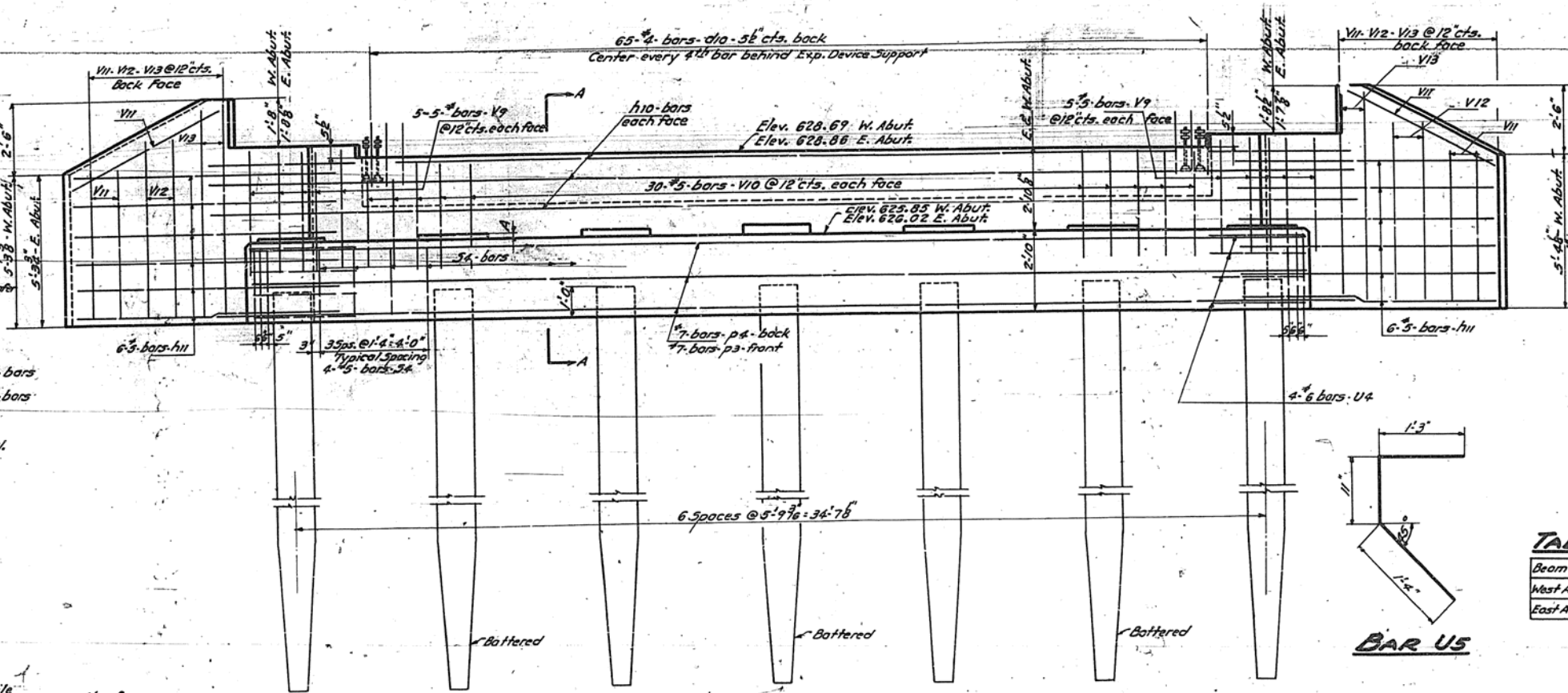
BAR	NO.	SIZE	LENGTH	SHAPE
d10	130	4	2'-6"	□
h10	24	5	20'-6"	—
h11	24	5	8'-6"	—
V9	40	5	4'-3"	—
V10	120	5	3'-9"	—
V11	12	5	5'-3"	—
V12	8	5	6'-3"	—
V13	8	5	7'-6"	—
P3	6	7	37'-9"	—
P4	12	7	20'-9"	—
S4	60	4	12'-3"	□
U4	16	6	11'-0"	□
U5	62	4	3'-6"	□

Class-X Concrete Cu. Yds. 43.6  
Reinforcement Bars Lbs. 3640  
16x16" Precast Conc. Piles (26'lg) Lin. Ft. 312

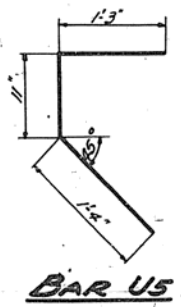


SECTION A-A

Battered Pile  
Note: Estimated Length of  
all 16" R.C. Piles: 26'-0"  
14 Reg'd.



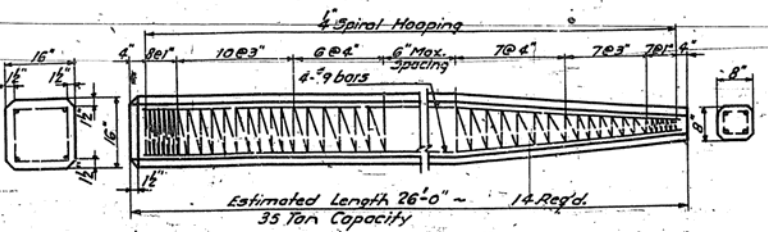
ELEVATION



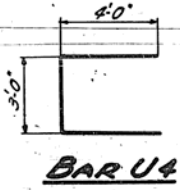
BAR U5

TABLE OF BLOCK HEIGHT DIMEN. - A

Beam No.	1	2	3	4	5	6	7
West Abut.	17 1/2	21 1/2	35	37 1/2	3'	2 1/2	1'
East Abut.	18	24	37 1/2	35	37 1/2	2 1/2	1'



DETAIL OF PRECAST CONCRETE PILES



BAR U4

COMPUTED	A. S. Harris
CHECKED	W. N. Sommer
DRAWN	R. D. Miller
CHECKED	W. H. S.
ASSEMBLED	
SPECIAL CHECKED	

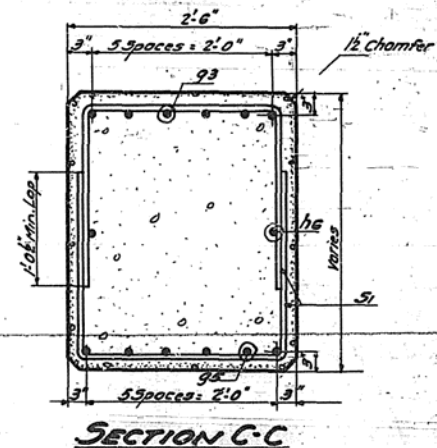
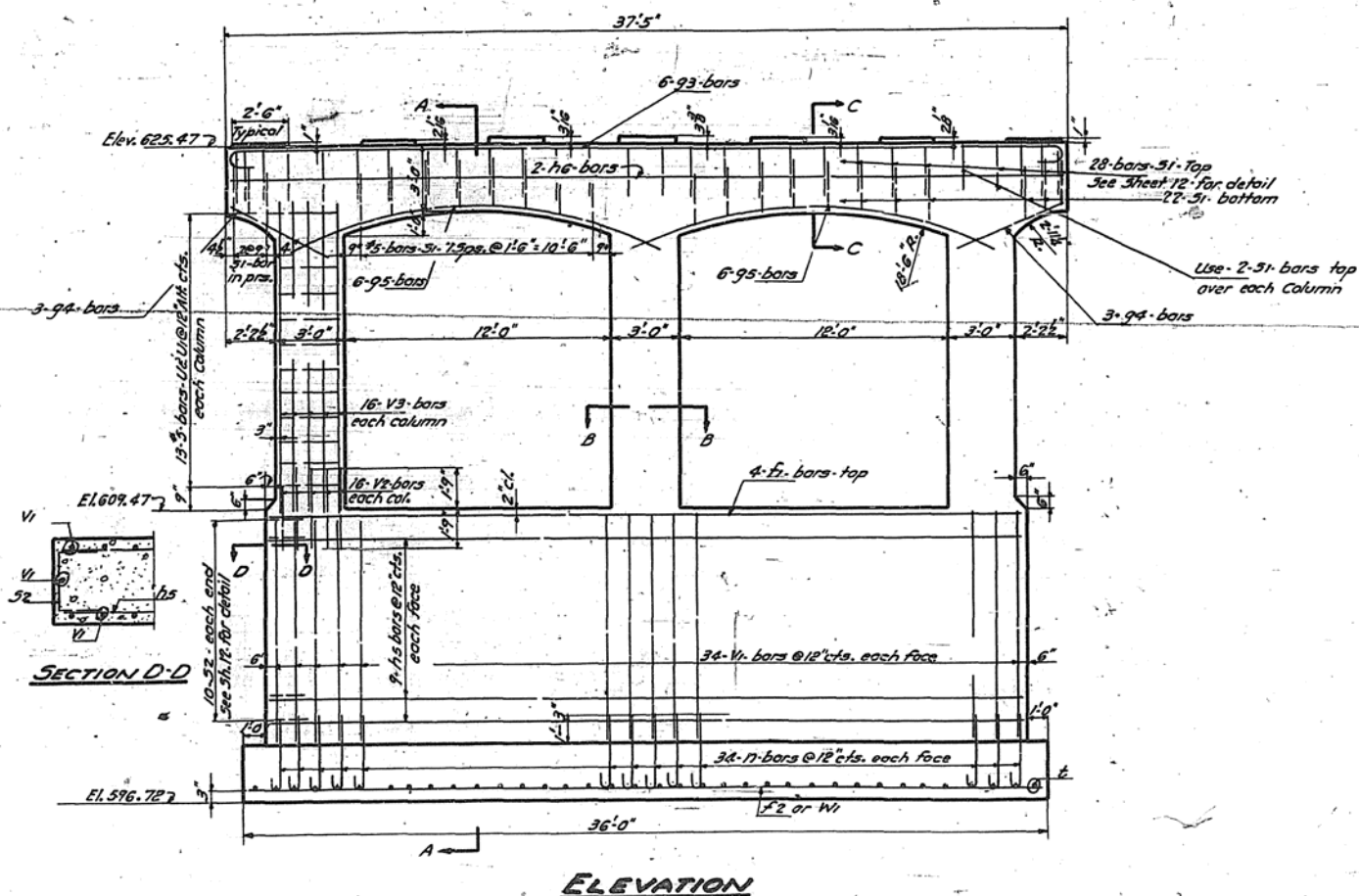
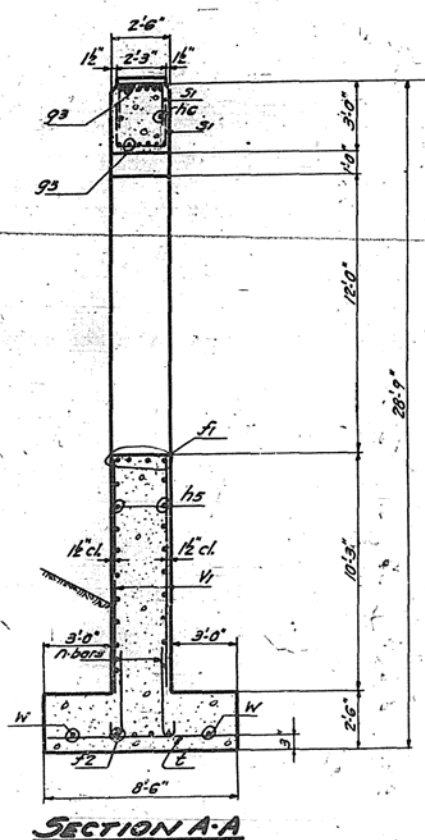
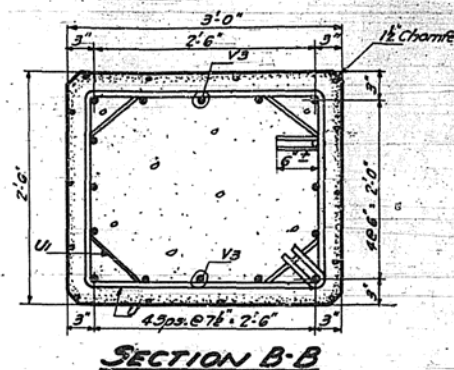
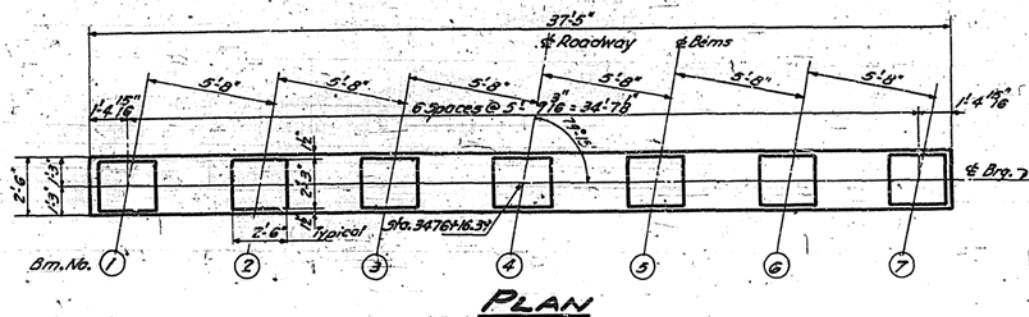
EXAMINED Feb 18 1932  
W. B. Hanson  
BRIDGE ENGINEER  
PASSED E. J. Shaw  
APPROVED J. N. Parker  
CHIEF HIGHWAY ENGINEER

1/2 Spiral Hooping may be  
Structural Grade Reinforcement

STA. 3476+54.97(1)  
EAST & WEST ABUTMENTS  
C.C.C. & ST. L. RY. OVERHEAD  
N.E. OF MARSHALL  
F.A. RTE. 12 - SEC. BX+VB  
PROJECT F61-9 (80)  
CLARK COUNTY

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

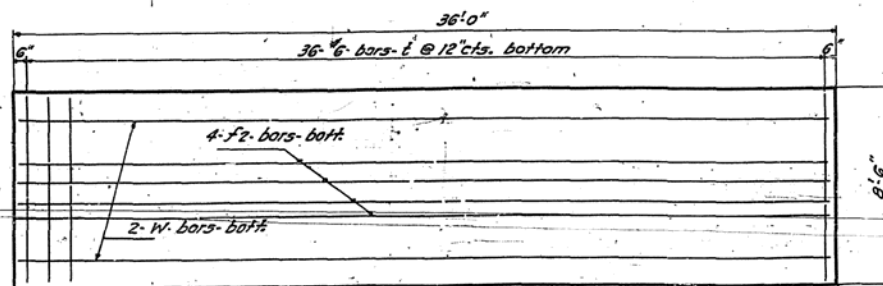
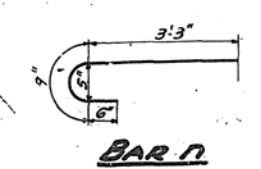
ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 11
FA. 12	BX-1VB	Clark	20	14	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



**BILL OF MATERIAL**

BAR	No.	SIZE	LENGTH	SHAPE
f1	4	#6	33'-6"	—
f2	4	#8	35'-6"	—
93	6	#9	39'-6"	C
94	6	#5	5'-0"	—
95	12	#7	15'-9"	—
96	18	#5	33'-6"	—
97	2	#5	37'-0"	—
7	70	#5	4'-6"	C
51	50	#5	7'-0"	U
52	20	#5	4'-0"	U
6	36	#6	8'-0"	—
U	21	#5	10'-9"	□
U1	18	#5	9'-0"	□
V1	70	#5	10'-0"	—
V2	48	#8	3'-6"	—
V3	48	#8	13'-9"	—
W	2	#5	35'-6"	—
Class-X Concrete		Cu.Yds.	83.4	
Reinforcement Bars		Lbs.	7140	
Class-A Excavation		Cu.Yds.	111	

Note: For detail of bars 93, 94 and 32 see sheet 12



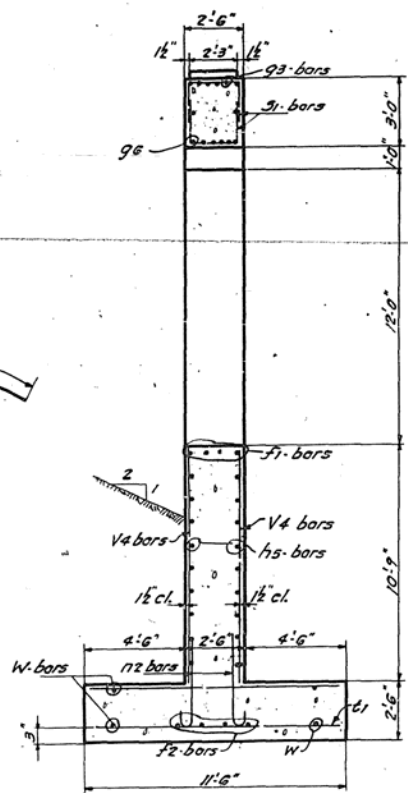
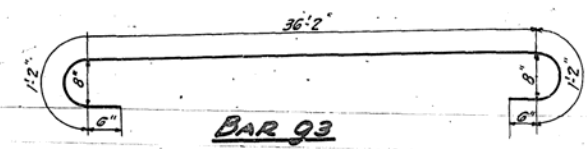
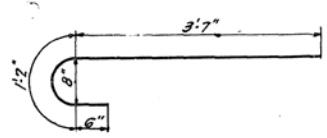
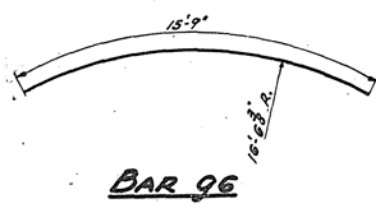
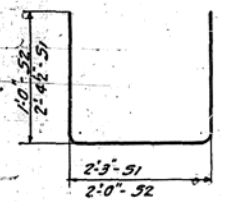
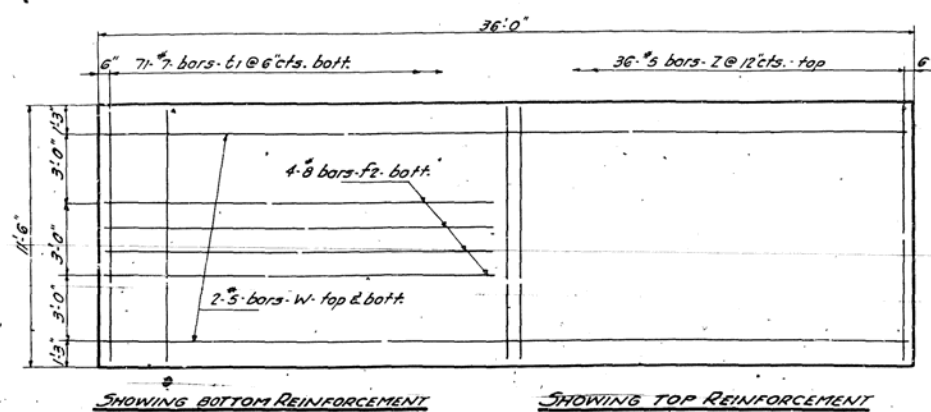
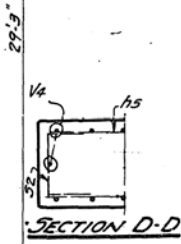
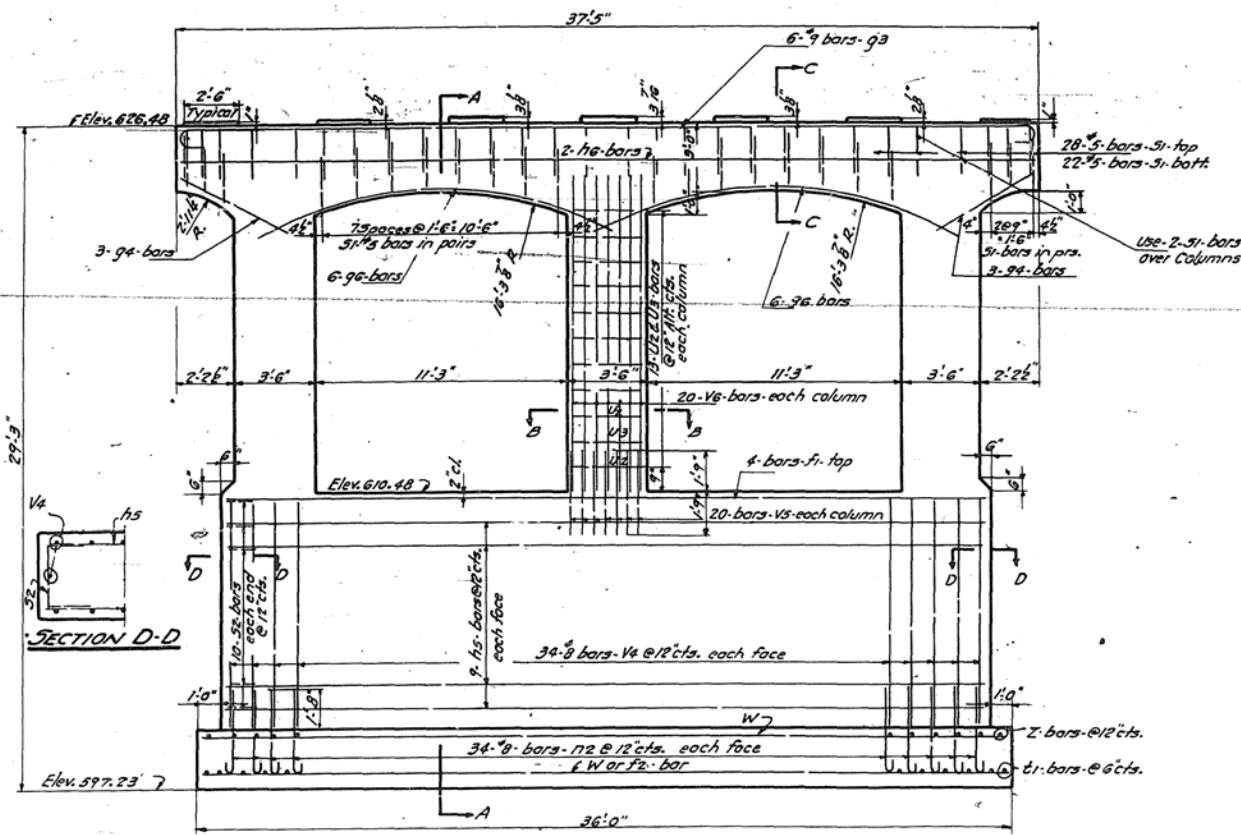
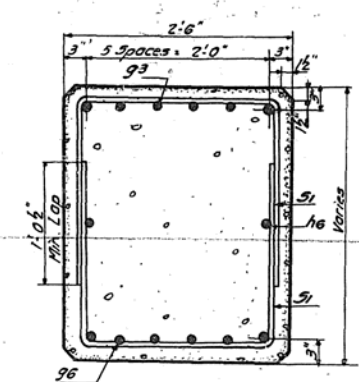
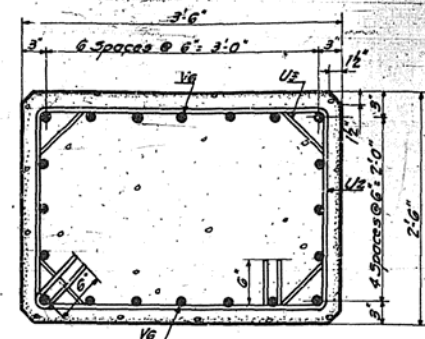
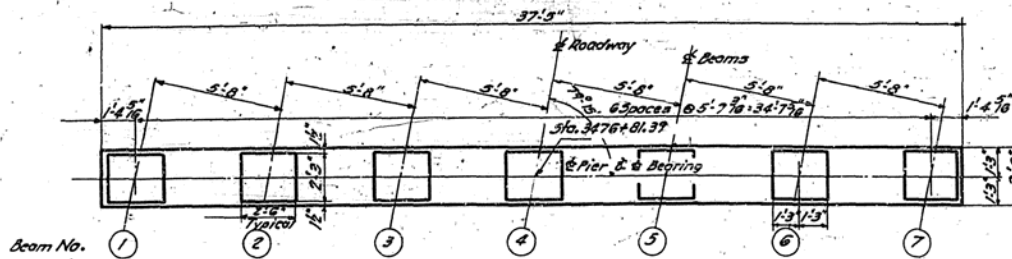
COMPUTED	RD
CHECKED	W.D. Wiley
DRAWN	RD
CHECKED	W.D. Wiley
ASSEMBLED	
CHECKED	

EXAMINED Feb 18 1952  
W.E. Hanson  
PASSED E.L. Hanson  
APPROVED F.N. Beckler

STA. 3476+5497(1)  
PIER 1  
C.C.C. & ST. L. RY. OVERHEAD  
N.E. OF MARSHALL  
FA. RTE. 12 - SEC. BX-1VB  
PROJECT F67.9 (RD)  
CLARK COUNTY

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

ROAD NAME	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 12
F.A. 12	BX-IVB	Clark	20	15	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



**BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
f1	4	6	33'6"	—
f2	4	8	35'6"	—
g3	6	9	39'6"	U
g4	6	6	5'0"	—
g6	12	7	15'9"	—
h5	18	5	33'6"	—
h6	2	5	37'0"	—
112	70	8	5'3"	—
S1	50	5	7'0"	U
S2	20	5	4'0"	U
E1	71	7	11'0"	—
U2	21	5	11'6"	U
U3	18	5	10'0"	U
V4	70	8	10'5"	—
V5	60	9	3'6"	—
V6	60	9	13'9"	—
W	4	5	35'6"	—
Z	36	5	11'0"	—
Class-X Concrete		Cu. Yds.	97.1	
Reinforcement Bars		Lbs.	12040	
Class-A Excavation		Cu. Yds.	115	

STANDARD	COMPUTED R.D.	EXAMINED	1924
	CHECKED W.F. Willy		W. G. Bussard
	DRAWN R.D. Miller	PASSED	E. J. Stewart
	CHECKED W.W. Sommer	APPROVED	F. J. [Signature]
SPECIAL	ASSEMBLED		
	CHECKED		

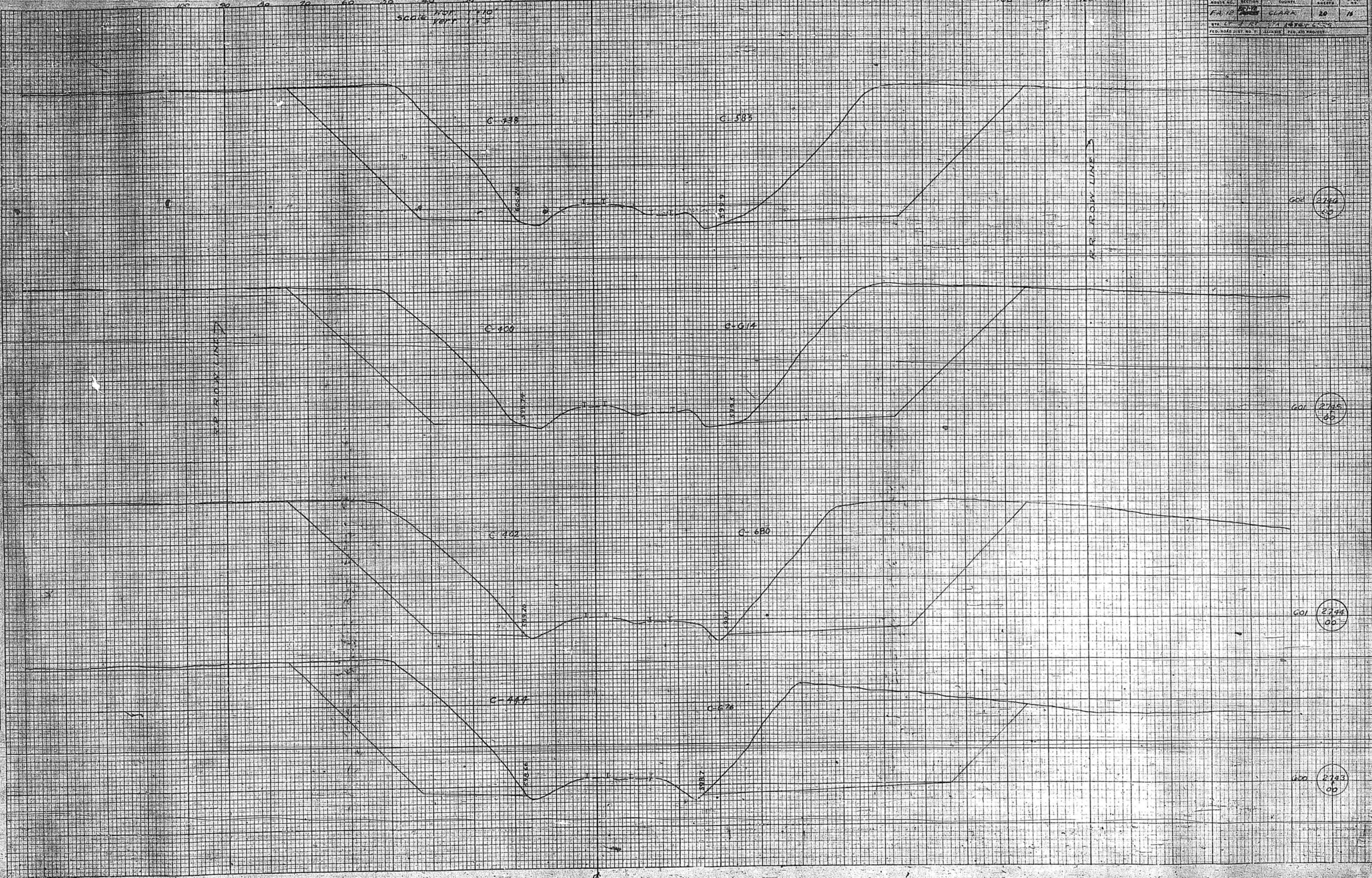
STA. 3476+54.97(1)  
**PIER 2**  
C.C.C. & ST. L. RY. OVERHEAD  
N.E. OF MARSHALL  
F.A. RTE. 12 - SEC. BX-IVB  
PROJECT FGT-9 (a)  
CLARK COUNTY

BORDER	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA-12	B-12	CLARK	20	15
STA. 2743+00 TO 2746+00				
FED. ROAD DIST. NO. 1 ALBANY FED. AID PROJECT				

SCALE HORIZ. 1"=10' VERT. 1"=5'

NO. OF SHEETS  
NO. OF PAGES  
NO. OF PLATS  
NO. OF SECTIONS  
NO. OF AREAS  
NO. OF CHECKS

ORIGINAL SURVEY  
NOTE BOOK NO.  
CORRECTION  
PLAT NO.  
AREA CHECKS



SECTION	QUANTITY	TOTAL SHEETS	SHEET
FA 12	CLARK	20	17
DATE: 5/16/25		BY: [Signature]	
JOB: ROAD DIST NO. 1		ALONG: [Blank]	

2755+00

OO FOR BORROW LEFT

RR ROW LINE

608 2759 00

C-348

608 2757 00

2757+60-00 FOR BORROW RIGHT

C-316

C-315

609 2757 00

C-402

C-532

607 2756 00

TYPE C.C.P. WITH TYPE B GRATE TO BE BUILT

EARTH BERM TO BE CONSTRUCTED AS DIRECTED BY THE ENGINEER

PIPER CULVERT TYPE 112 CORR METAL PIPE 26 LIN FT STA 2755

C-423

C-518

607 2755 00

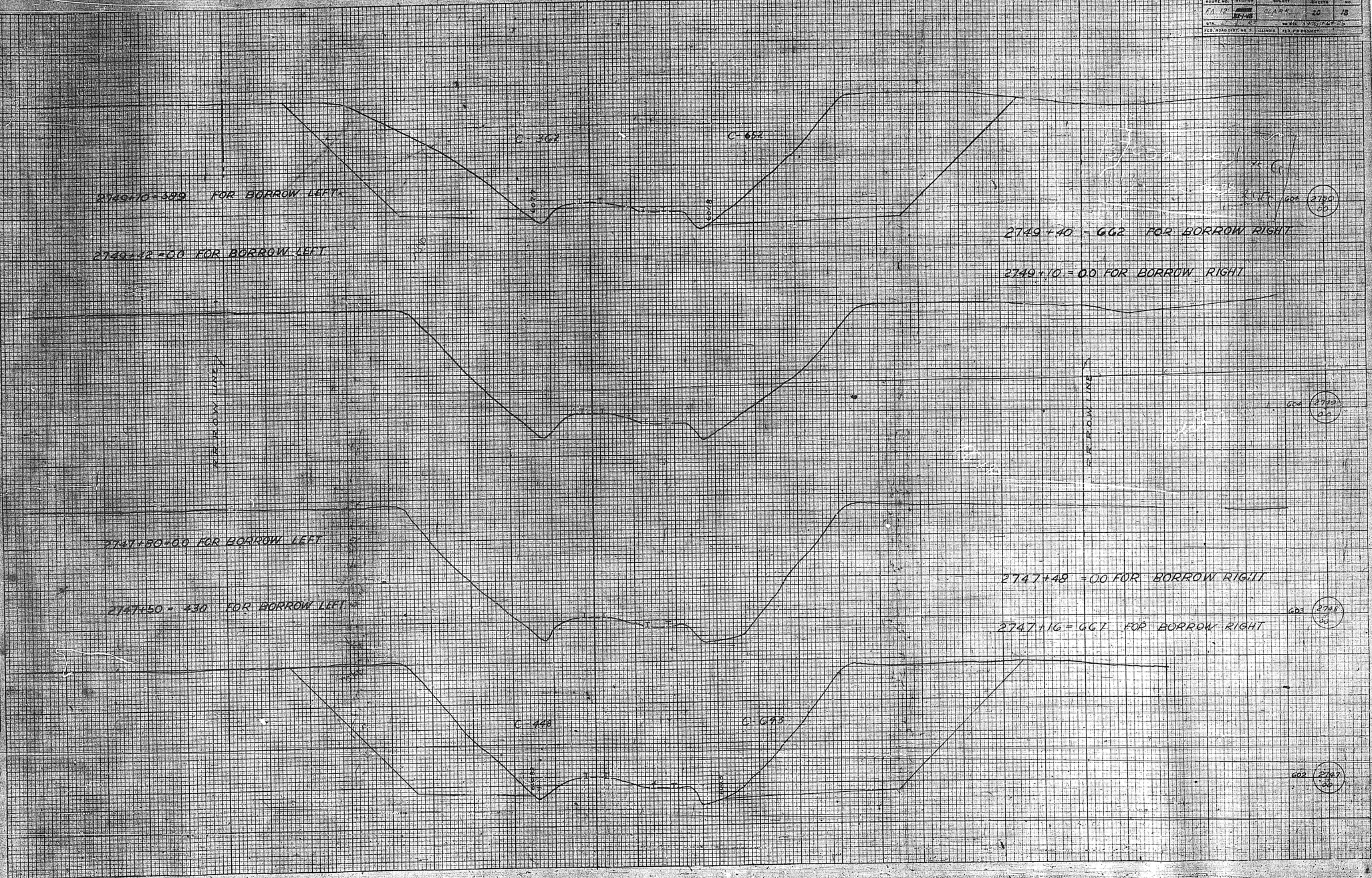
RR ROW LINE



SECTION	SHEET	TOTAL SHEETS
FA 12	20	75

DATE: 11/11/50  
 DRAWN BY: J. H. W. / J. H. W.  
 CHECKED BY: J. H. W. / J. H. W.  
 NO. 1

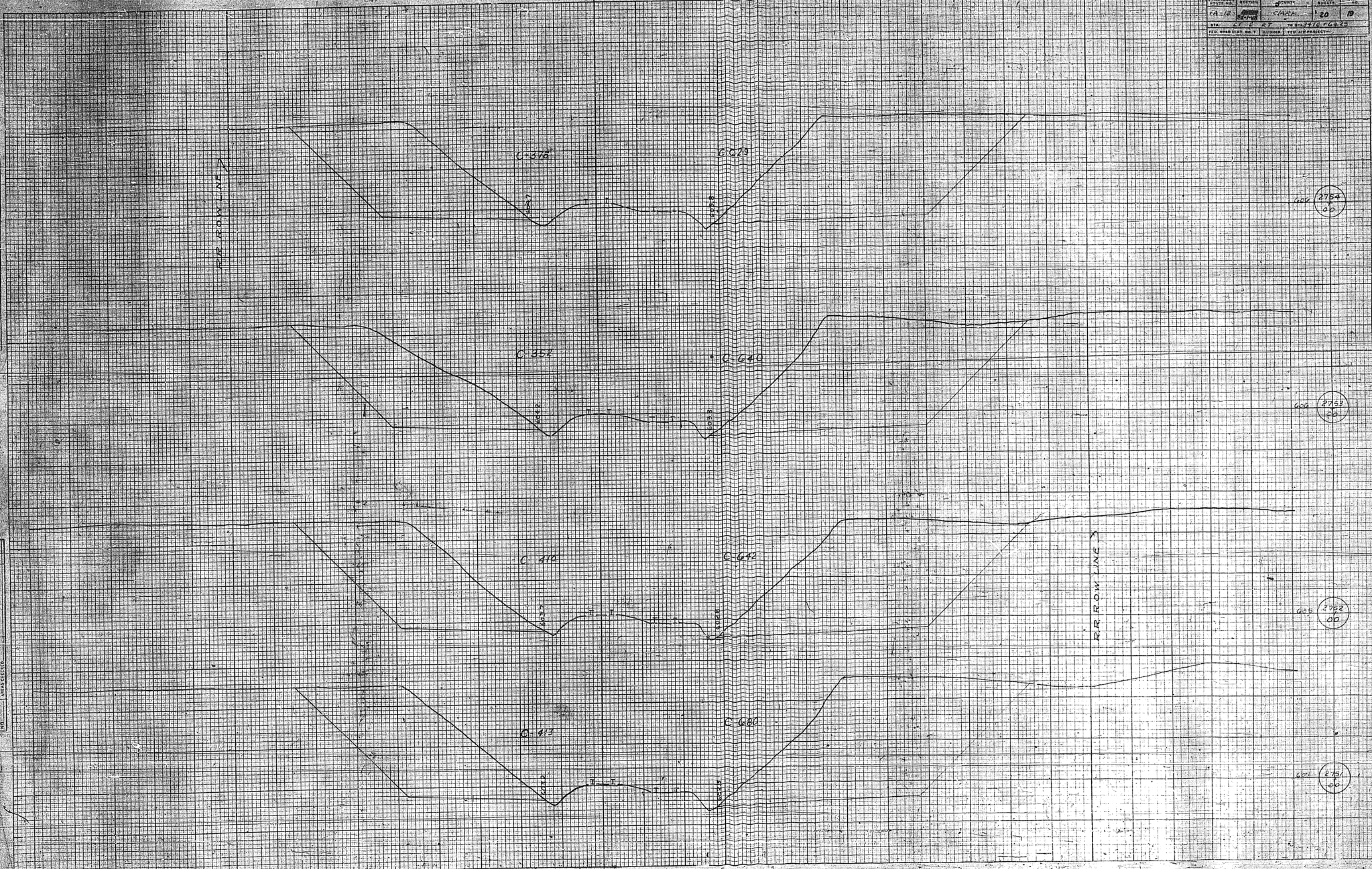
DATE: 11/11/50  
 DRAWN BY: J. H. W. / J. H. W.  
 CHECKED BY: J. H. W. / J. H. W.  
 NO. 1



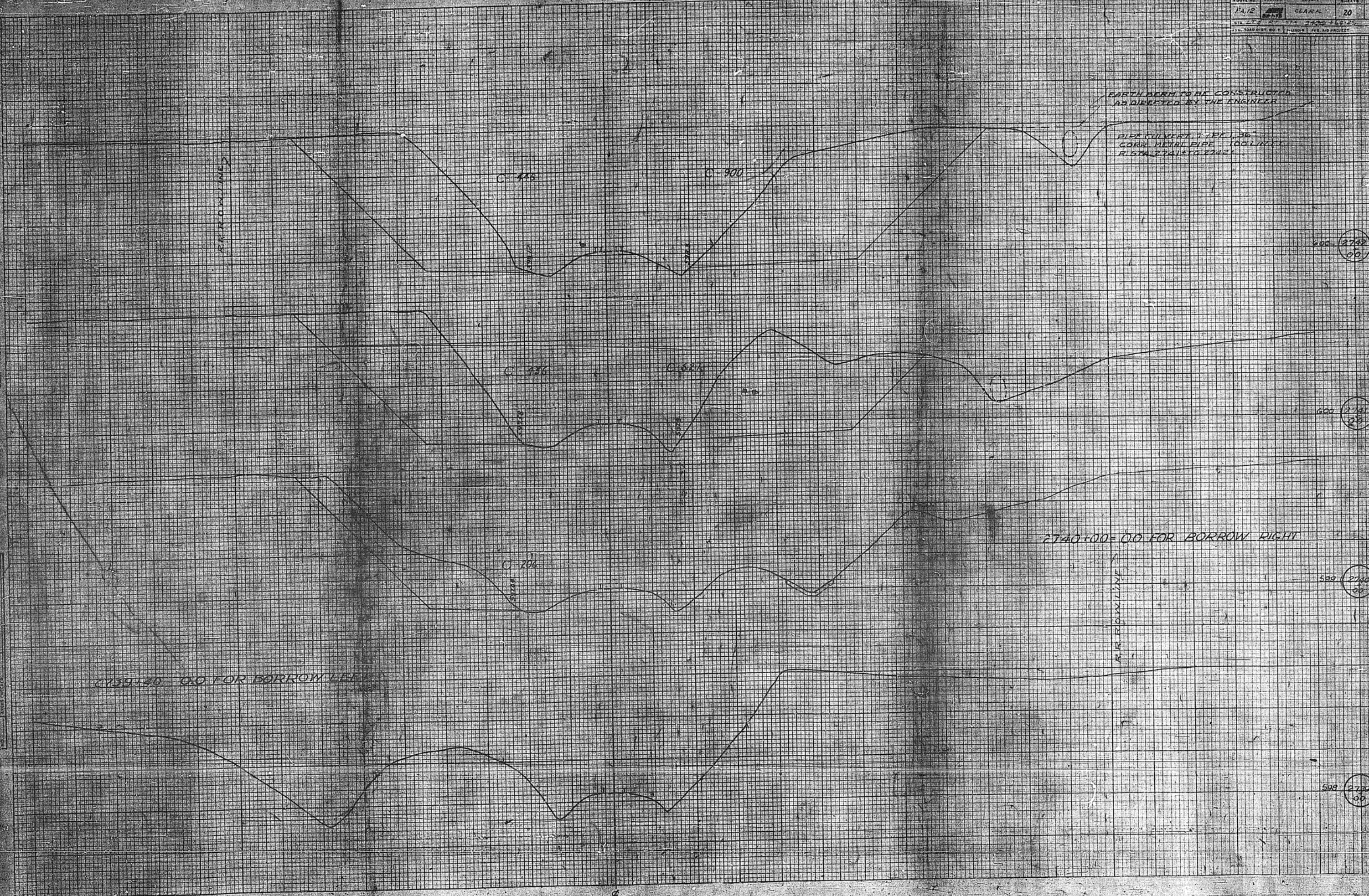
PROJECT NO.	SECTION	SHEET	TOTAL SHEETS
FA-12	CLARK	20	18
STA: LT & RT TO STA 3476+6425			
FED. ROAD DIST. NO. 7			

ORIGINAL SURVEY MAP NO. 100  
 DATE 1/1/20  
 DRAWN BY J. W. 2  
 CHECKED BY J. W. 2

ORIGINAL SURVEY MAP NO. 100  
 DATE 1/1/20  
 DRAWN BY J. W. 2  
 CHECKED BY J. W. 2



CONTRACT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1A12	20	CLARK	20	20
DATE: 1975				
DRAWN BY: [unclear]				
CHECKED BY: [unclear]				



EARTH BERM TO BE CONSTRUCTED AS DIRECTED BY THE ENGINEER

PIPE CULVERT 7' DIA. 36\"/>

600 2762 00

600 2741 00

599 2740 00

599 2739 00

2740+00.00 FOR BORROW RIGHT

2739+00.00 FOR BORROW LEFT

SPECIAL SURVEY FOR THE STATE OF MISSOURI  
 SURVEYOR GENERAL  
 JOHN W. [unclear]  
 1975

SPECIAL SURVEY FOR THE STATE OF MISSOURI  
 SURVEYOR GENERAL  
 JOHN W. [unclear]  
 1975

