FED. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 172	15L	Peoria-Tazewell	15	1
	15P		3	11

FED. AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
172	15 D & E, F	Peoria	44	1
		Tazewell	93	

FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT 609-A(1)

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

SCALES		
PLAN	1 INCH	100 FT.
PROFILE, HOR.	1 INCH	100 FT.
PROFILE, VERT.	1 INCH	10 FT.
CROSS-SECTIONS	1 INCH	5 FT.

F.A. Rt. 172, Sec. 15 B,L,P,E,D, Peoria Tazewell Co.

Regular Federal Aid Project 609-A(1)
U-609 (8)



LOCATION OF SECTION INDICATED THUS:—

INDEX to SHEETS

Sec. 15B

Sheet No 1 Title Sheet
" " 2 to 31 inc. Special Bridge Design (Sheets 1 to 30 of 30 Sheets)
" " 32 P.E. Plan & Profile Sta 193+81 to 199+44 (Sheet 8 of Sec. 14 Peoria Co)
" 15 " " " 244+41.25 to 260+90 (Sheet 8 of Sec 14 Tazewell Co)

Secs. 15F & 15E

Sheet No 1 Title Sheet
" " 2 to 94 inc Special Bridge Plans (Sheets 1-63 of 63 Sheets)
" " 94A " " " (Sheet 94A of 94 Sheets)

Sec. 15 D

Sheet No. 1 Title Sheet
" " 2-44 inc. Special Bridge Design (Sheets 1 to 8, 17 to 23, 34, 35, & 46 to 70 of 70 sheets)

Sec. 15 L

Sheet No. 1 Cover Sheet
" " 2-10 Special Bridge Design, Harvard St. Bridge (Sheets 1, 60 and 64-70 Inclusive of 70
" " 11-15 Special Bridge Design, Sta. 197+47.5 (Sheets 1, 4, 5, 9 & 10 of 10 } Used also in Peoria Co. Sec. 14 HB

Sec. 15 P

Sheet No 1 Title Sheet
2-3 Special Bridge Design, Harvard St. Bridge (Sheets 1 & 60 of 70

SUMMARY of QUANTITIES

Sec. 15 B

507,365	Lbs.	Reinforcement Bars
134,084	Lbs.	Structural Steel
1,264.7	Cu. Yds.	Class X Concrete
3,311.3	Cu. Yds.	Seal Coat Concrete
2,817,353	Lbs.	Furnishing Steel Piles
105,064	Lbs.	Pile Caps and Points
54,706	Lin. Ft.	Driving Steel Piles
46	Each	Driving Steel Test Piles
100	Each	Emergency Splices
220	Lin. Ft.	Furnishing Untreated Piles 30 ft to 45 ft long
240	Lin. Ft.	Driving Timber Piles 40 ft long
2935	Cu. Yds.	Class A Excavation
14,988	Cu. Yds.	Class B Excavation
4190	Cu. Yds.	Earth Excavation
3,920	Cu. Yds.	Compaction by Watersoaking
370	Sq. Yds.	Slope Wall
1	Each	Cofferdam at Pier No 6
1	Each	Cofferdam at Pier No 7
1	Each	Cofferdam at Pier No. 8
1	Each	Cofferdam at Pier No. 9
1	Each	Cofferdam at Pier No. 10
1	Each	Cofferdam at Pier No. 11
1	Each	Cofferdam at Pier No. 12
1	Each	Cofferdam at Pier No. 13
1	Each	Cofferdam at Pier No. 14
1	Each	Cofferdam at Pier No. 15
1	Each	Cofferdam at Pier No. 16
1	Each	Cofferdam at Pier No. 17
1	Each	Cofferdam at Pier No. 18
1	Each	Cofferdam at Pier No. 19
1	Each	Cofferdam at Pier No. 20
1	Each	Cofferdam at Pier No. 21
1	Each	Cofferdam at Pier No. 22
1	Each	Cofferdam at Pier No. 23
1	Each	Cofferdam at Pier No. 24
1	Each	Cofferdam at Pier No. 25
1	Each	Cofferdam at Pier No. 26
1	Each	Cofferdam at Pier No. 27
1	Each	Cofferdam at Pier No. 28
22,086	Bbls.	Portland Cement

Sec. 15 F Alternate A

4,766,670	Lbs.	Structural Steel (Carbon)
3,194,370	Lbs.	Structural Steel (Silicon)
91,350	Lbs.	Cast Steel
3876	Sq. Ft.	Open Grid Floor
2,000	Lin. Ft.	Wire Rope

Sec. 15 E

2,766,670	Lbs.	Structural Steel (Carbon)
3,194,370	Lbs.	Structural Steel (Silicon)
91,350	Lbs.	Cast Steel
93,876	Sq. Ft.	Open Grid Floor
2,000	Lin. Ft.	Wire Rope

Sec. 15 D

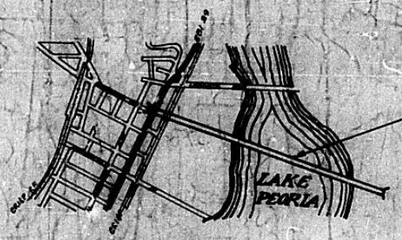
3,934.0	Cu. Yds.	Class X Concrete
1,061,930	Lbs.	Reinforcement Bars
20	Sq. Yds.	Concrete Apron
4,580	Lbs.	C.I. Frames Grates & Covers
217.25	Lin. Ft.	Wrought Iron Pipe 8"
9,850	Lin. Ft.	Galv. Iron Conduit 1½"
4,810	Lin. Ft.	Galv. Iron Conduit 1"
83	each	Junction Boxes - J1
1	each	Junction Boxes - J4
70	Lin. Ft.	Galv. Iron Conduit 2"

Sec. 15 L

58	each	Light Poles & Brackets
19	each	Lighting Brackets - 1
11	each	Concrete Foundations
12,750	lin. ft.	Cable
4500	lin. ft.	Navigation Circuit - Wire & Cable
1380	lin. ft.	Trench (2'-0" deep)
1	each	Constant Current Regulator
1	each	Primary Control Switch
1	each	Protective Relay
2	each	Time Switch
4	each	Primary Cutouts
4	each	Lightning Arresters
11	each	Type A Lighting Fixtures
9	each	Type D Lighting Fixtures
57	each	Type C Lighting Fixtures
8	each	I.L. Transformers - Type A
4	each	I.L. Transformers - Type B
57	each	I.L. Transformers - Type C
2	each	I.L. Transformers - Type D
500	lin. ft.	Galvanized Iron Conduit - 1" Round
470	lin. ft.	Galvanized Iron Conduit - ¾" Round
11	each	Junction Boxes J-4
400	lin. ft.	3 #6 No. 10 RR. Cable
43	each	Cast Iron Sleeve Brackets
44	each	Navigation Lanterns
Lump Sum		Cleaning & Painting Lighting Systems

Sec. 15 P

9,057,965	lbs.	Painting Structural Steel
3974	sq. ft.	Painting Open Grid Floor
2000	lin. ft.	Painting Wire Rope



PEORIA

LAYOUT

Approximate Scale 3½ inches = 1 mile

Sec. 15P
Cleaning & Painting Steel Superstructure of Illinois River Bridge At Harvard St. At Peoria.

Sec. 15L
Includes Lighting Systems For Illinois River Bridge At Harvard St. & For Adams St. Grade Separation Bridge At Sta. 197+47.3 At Peoria.

Sec. 15-D includes R.C. Floor and sidewalks furnishing and installing conduit and junction boxes for lighting system for the Illinois River Bridge at Harvard Street, Peoria.

Sec. 15B includes the construction of the substructure for the Illinois River Bridge at Harvard St., Peoria, including abutments No 3 and 4, and Piers 3 to 28, Inclusive.

Sec. 15F includes the furnishing and fabrication of the Structural Steel (Carbon and Silicon), Steel Castings, Open Grid Flooring and Wire Rope; furnishing and Application of the Shop Coat of Paint for the entire superstructure, and delivery for Bridge Site, of the fabricated materials; for a Steel Bridge, 12 truss spans, 4@208', 2@260', 2@469', 1@536', 2@158', 1@238', 3 Plate Girder Spans 2@118', 2@86', 2@110' and 8 I Beam Spans 1@48'6", 4@72', 2@92', 1@85' for the Illinois River Bridge at Harvard St. in Peoria.

Sec. 15E includes the Unloading, transporting from unloading point at Bridge Site and Erection of the fabricated materials, furnishing and application of paint for spot painting of rivet heads and abrasions & the Shop coat of paint, For a Steel Bridge of 12 truss spans, 4@208', 2@260', 2@469', 1@536', 2@164', 1@268', 6 Plate Girder Spans 2@118', 2@86', 2@110' and 8 I Beam Spans 1@48'6", 4@72', 2@92', 1@55' for the Illinois River Bridge at Harvard St. in Peoria.

Sec. 15 B and 15 F

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

SUBMITTED December 13 1939 Theo. Plack
EXAMINED 1940 DISTRICT ENGINEER
PASSED 1940 ROAD ENGINEER
APPROVED 1940 DIRECTOR OF DIVISION
APPROVED 1940 CHIEF HIGHWAY ENGINEER
APPROVED 1940 DIRECTOR

RE-SUBMITTED FOR APPROVAL
APPROVED
COMMISSIONER PUBLIC ROADS ADMINISTRATION FEDERAL WORKS AGENCY

Sec. 15 D

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

SUBMITTED August 6, 1942 J.D. Mattison
EXAMINED 1942
PASSED 1942
APPROVED 1942
APPROVED 1942

Sec. 15 E

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

SUBMITTED Feb 9 1946 J.D. Mattison Asst.
EXAMINED Feb 11 1946
PASSED Feb 11 1946
APPROVED Feb 11 1946
APPROVED Feb 10 1946

Sec. 15 P & 15 L

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

SUBMITTED March 2 1943 J.D. Mattison
EXAMINED 3-4 1943
PASSED 3-4 1943
APPROVED 3-4 1943
APPROVED 3-4 1943

Peoria Tazewell COUNTY SECTION 15 B,L,P,E,D, ROUTE 172

Sec 15D Rouge 11-3-47 Sec 15E added 4TP 5-12-49 Sec 15E 2-11-46 W.W.

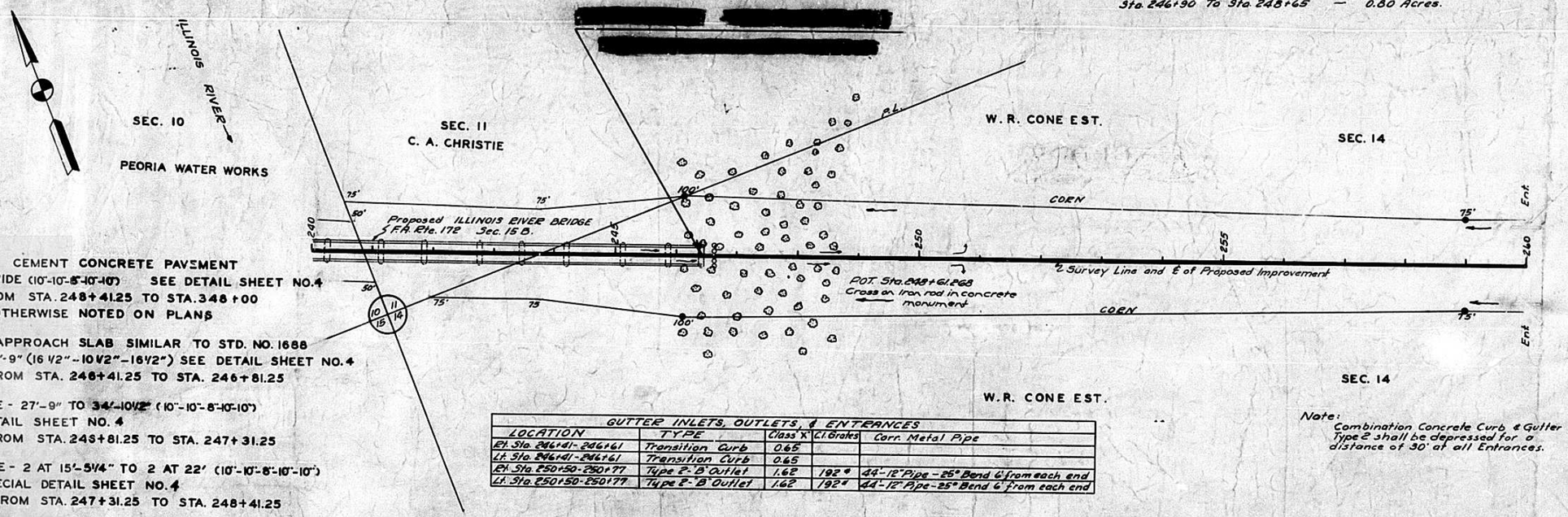
T26N R4W 3PM

PLAIN CONCRETE GUTTER TYPE "B"
Rt. & Lt. Sta. 246+61 To Sta. 250+50 — 778 Lin. Ft.

COMBINATION CONCRETE CURB & GUTTER, TYPE 2
Sta. 247+31 To Sta. 260+00 — 1269 Lin. Ft.

CLEARING
Sta. 246+90 To Sta. 248+65 — 0.80 Acres.

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOT. SHEETS
FA 172	15B	Peoria Tazewell	31
STA. 246+41.25		TO STA. 260+00	
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT-	



PORTLAND CEMENT CONCRETE PAVEMENT
2 AT 22' WIDE (10"-10"-8"-10"-10") SEE DETAIL SHEET NO. 4
USED FROM STA. 248+41.25 TO STA. 348+00
UNLESS OTHERWISE NOTED ON PLANS

BRIDGE APPROACH SLAB SIMILAR TO STD. NO. 1688
26' TO 27'-9" (16 1/2"-10 1/2"-16 1/2") SEE DETAIL SHEET NO. 4
USED FROM STA. 246+41.25 TO STA. 246+81.25

VARIABLE - 27'-9" TO 34'-10 1/2" (10"-10"-8"-10"-10")
SEE DETAIL SHEET NO. 4
USED FROM STA. 248+81.25 TO STA. 247+31.25

VARIABLE - 2 AT 15'-5 1/4" TO 2 AT 22' (10"-10"-8"-10"-10")
SEE SPECIAL DETAIL SHEET NO. 4
USED FROM STA. 247+31.25 TO STA. 248+41.25

U.S.G.S. B.M.
Top of Cap in Yard
of Peoria Waterworks
Pumping Plant
Elev. 457.01

GUTTER INLETS, OUTLETS, & ENTRANCES				
LOCATION	TYPE	Class 'X'	Cl. Grates	Corr. Metal Pipe
Rt. Sta. 246+41-246+61	Transition Curb	0.65		
Lt. Sta. 246+41-246+61	Transition Curb	0.65		
Rt. Sta. 250+50-250+77	Type 2-'B' Outlet	1.62	192 #	44'-12" Pipe-25° Bend 6' from each end
Lt. Sta. 250+50-250+77	Type 2-'B' Outlet	1.62	192 #	44'-12" Pipe-25° Bend 6' from each end

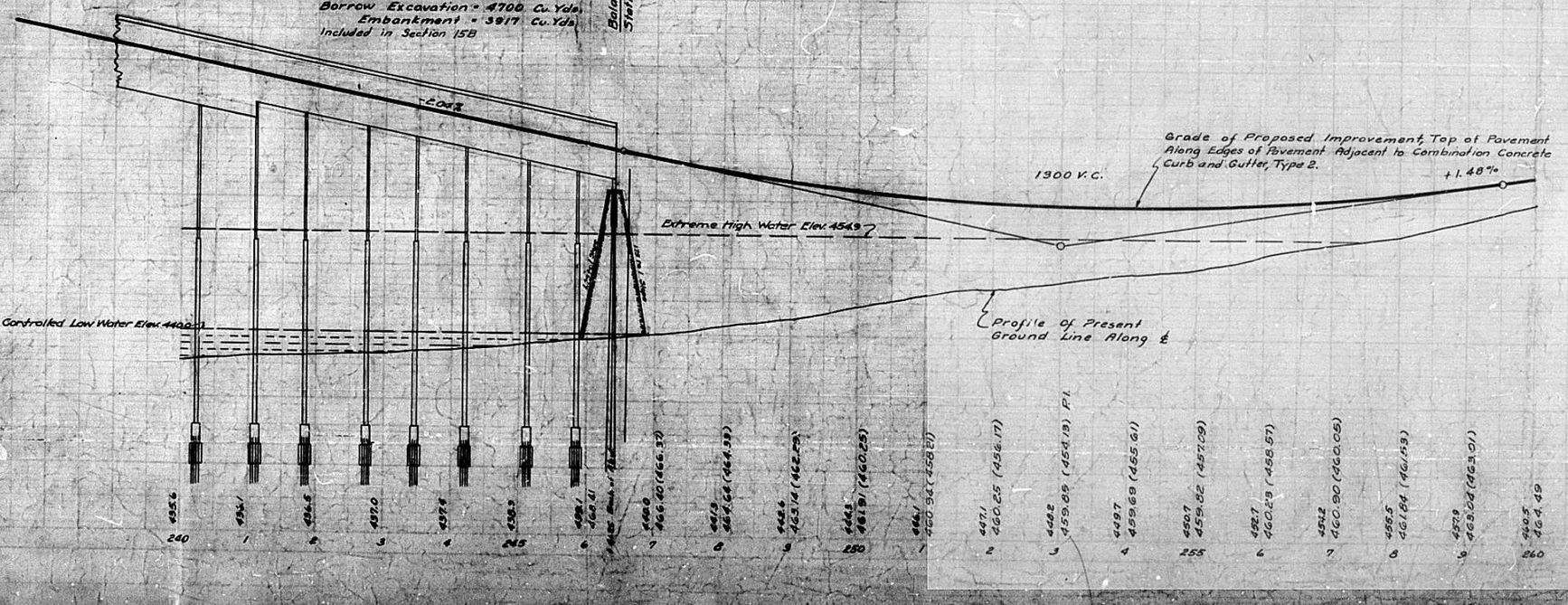
Note:
Combination Concrete Curb & Gutter Type 2 shall be depressed for a distance of 30' at all Entrances.

B.M. #23
Top N.E. Cor. of Steel Plate on Stump
190' Rt. 248+00
Elev. 444.30

B.M. #24
Horiz. S&W in 18" Ash
400' Lt. Sta. 253+00
Elev. 447.90

BACKFILL Around ABUTMENT To Be Made By Bridge Contractor
Borrow Excavation = 4700 Cu. Yds.
Embankment = 3917 Cu. Yds.
Included in Section 15B

Point of Balance Station 248+41.25



Scale
Plan: 1"=10'
Profile: 1"=10'

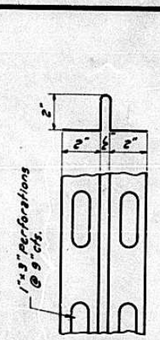
F.A. ROUTE 172 SECTION
EAST APPROACH TO ILL. RIVER BRIDGE
TAZEWELL COUNTY

DESIGN DESIGNED CHECKED CHECKED INK CHECKED
PLAN SURVEYED CHECKED CHECKED INKED INK CHECKED
E.N. ANDERSON D.J. DEYOE K.N. LEVY J. Palmeri
11-37 4-37 4-37 12-39
1070
Entire Section inspected and approved as to policy.
District Engineer
Date
Klass Towers Lewis Palmieri
11-39 11-39 11-39 12-39

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

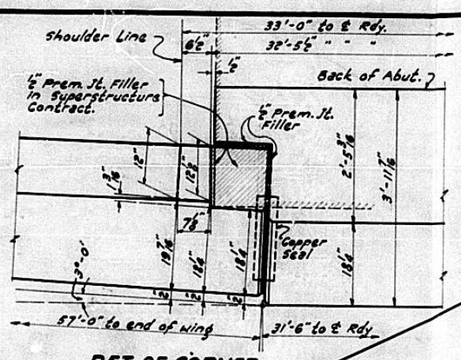
ROAD SYSTEM ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	21	3
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609 A		

SHEET NO. 2
30 SHEETS



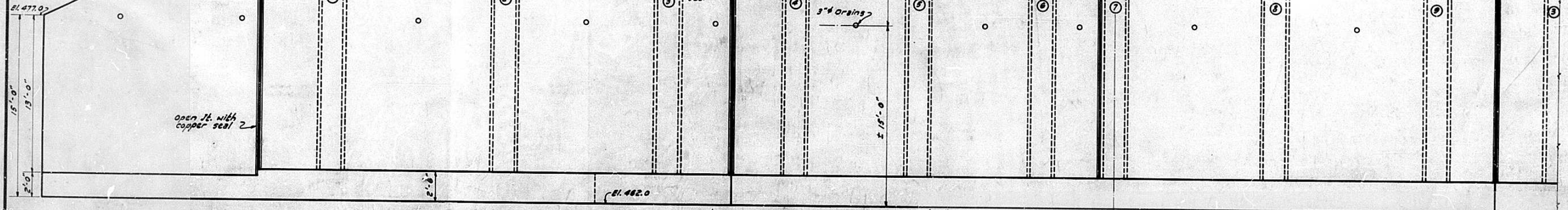
COPPER SEAL

Copper seal shall be 16 oz. cold rolled annealed copper. Splices, if necessary, shall be soldered or brazed. Cost of copper seal & Prem. Jt. Filler shall be included in the contract unit price bid for Class "X" Concrete.

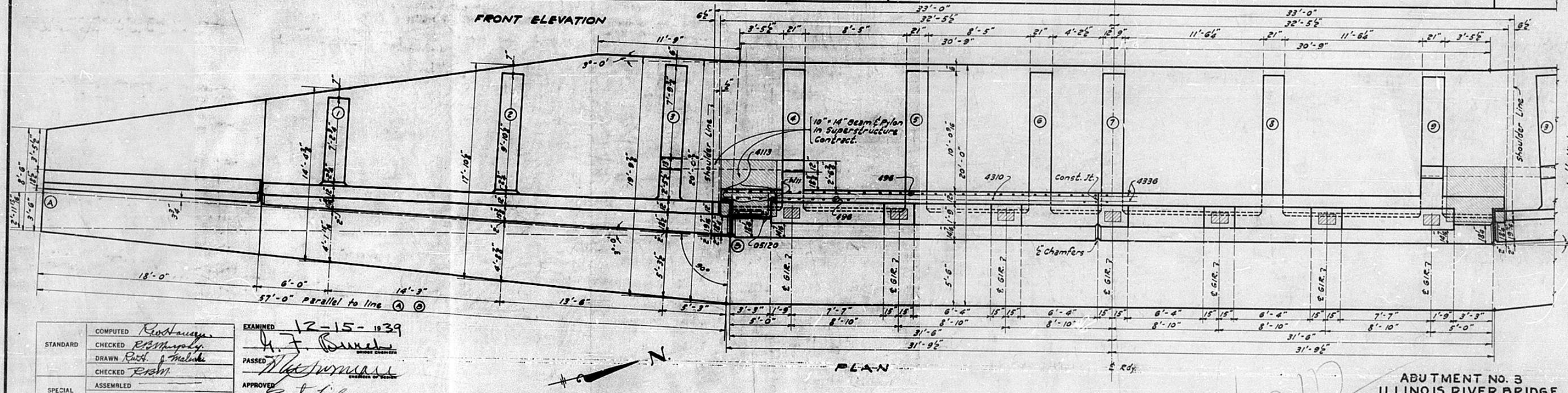


DET. OF CORNER

NOTE ÷ Premoulded Jt. Filler shall conform to Art's 105.65 to 105.69 inclusive of the Supplemental Specif's.



FRONT ELEVATION



PLAN

STANDARD	COMPUTED	Rich Hauser
	CHECKED	R.S.M. Murphy
	DRAWN	Ruth J. Malaski
	CHECKED	R.S.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 12-15-1939
H. F. Bunker
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

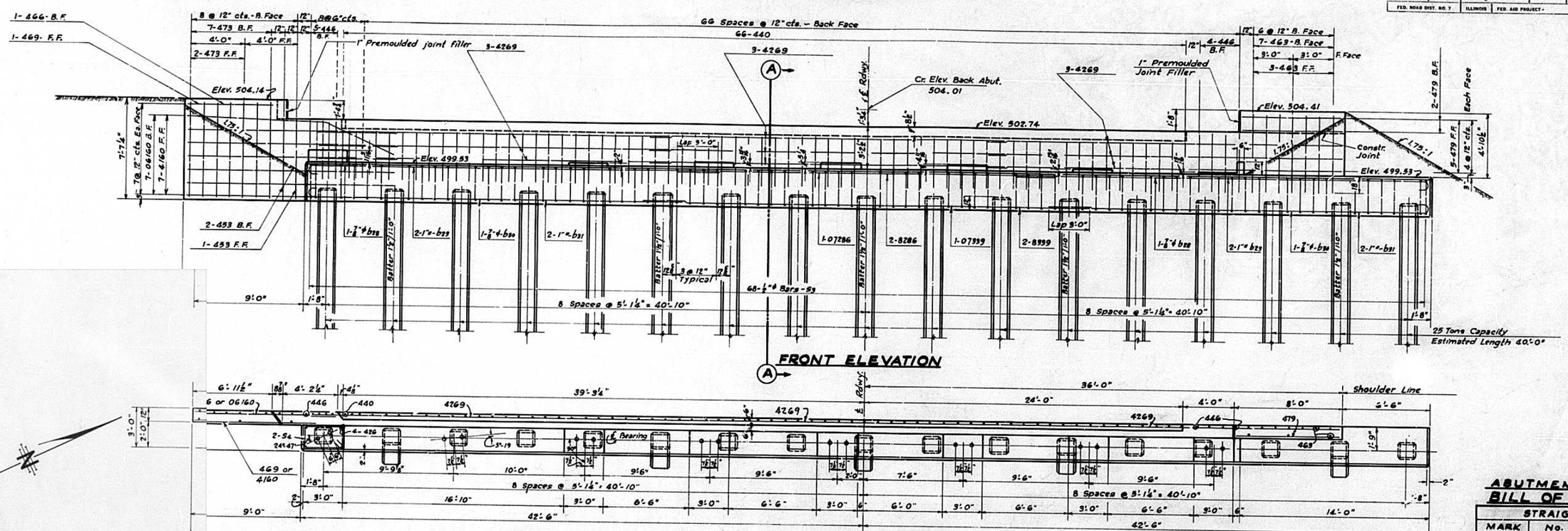
1012

ABUTMENT NO. 3
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 SECTION 15-B
PEORIA – TAZEWELL COUNTIES

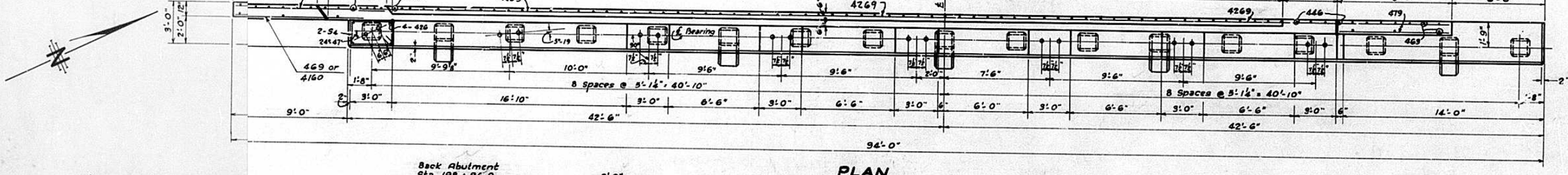
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15B	Peoria–Tazewell		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

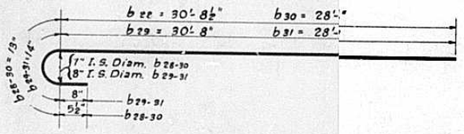
SHEET NO. 2A
SHEETS



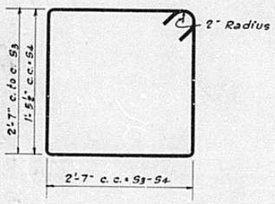
FRONT ELEVATION



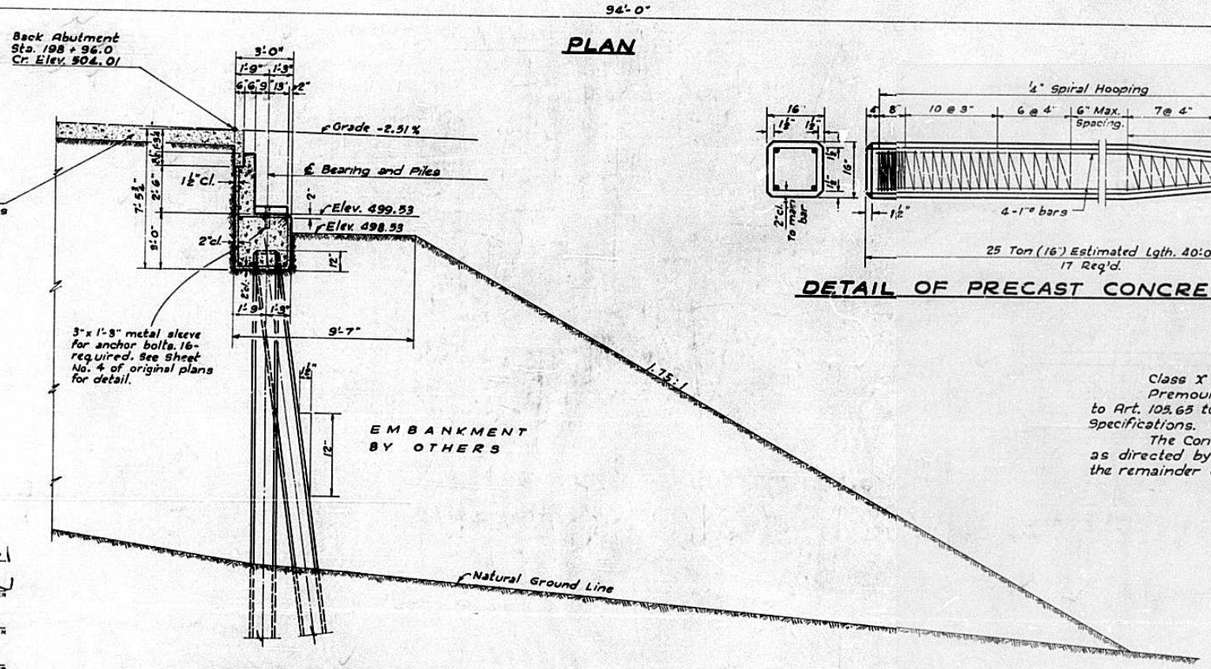
PLAN



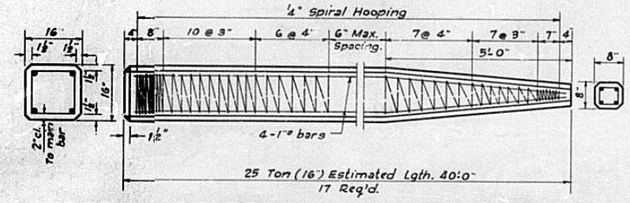
DETAIL OF BARS b28 29 b30 b31



DETAIL OF BAR S3-S4



SECTION A-A



DETAIL OF PRECAST CONCRETE PILES

NOTES

Class 'X' concrete shall be used thruout.
Premoulded joint filler shall conform to Art. 105.65 to 105.69 inclusive of the Suppl. Specifications.
The Contractor shall drive one test pile as directed by the Engineer before casting the remainder of the piles.

ABUTMENT NUMBER 2
BILL OF MATERIAL

STRAIGHT BARS			
MARK	NO.	SIZE	LENGTH
466	1	1/2" ϕ	6'-6"
469	1	"	6'-9"
479	9	"	7'-3"
453	3	"	6'-9"
06160	7	¾" ϕ	16'-0"
4160	7	1/2" ϕ	16'-0"
440	66	"	4'-0"
4269	9	"	26'-9"
463	10	"	6'-3"
479	7	"	7'-9"
07286	1	⅞" ϕ	28'-6"
07339	1	"	33'-9"
8286	2	1" ϕ	28'-6"
8339	2	1" ϕ	33'-9"
446	9	1/2" ϕ	4'-6"
426	4	1/2" ϕ	2'-6"

BENT BARS			
MARK	NO.	SIZE	LENGTH
b28	2	⅞" ϕ	32'-3"
b29	4	1" ϕ	32'-6"
b30	2	⅞" ϕ	29'-9"
b31	4	1" ϕ	30'-0"
S3	68	1/2" ϕ	11'-6"
S4	2	1/2" ϕ	9'-3"

Class 'X' Concrete	Cu. Yds.	39.2
Reinforcement Bars	Lbs	3100
Precast Concrete Pile (16')	Lin. Ft.	680
Concrete Test Pile	Each.	1

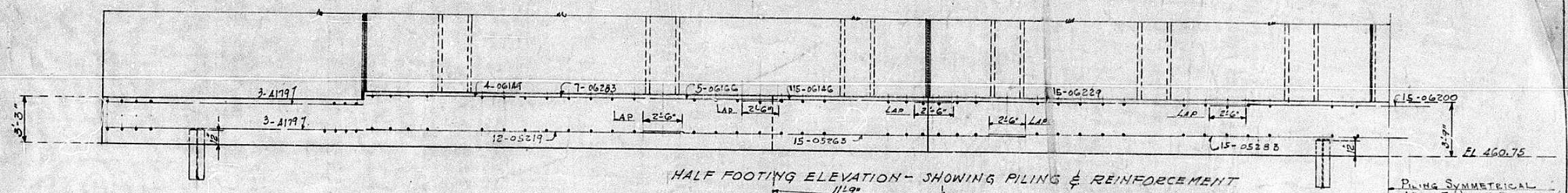
STANDARD	COMPUTED	R. W. Hewitt - q.
	CHECKED	D. Mickam
	DRAWN	Rich.
	CHECKED	T. Boo.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 3-31-1941
M. T. Bushnell
BRIDGE ENGINEER
APPROVED
ENGINEER OF DESIGN
CHIEF HIGHWAY ENGINEER

DETAILS OF ABUTMENT No. 2
ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F. A. RTE. 172 - SECTION 15-B
PEORIA-TAZEWELL COUNTIES

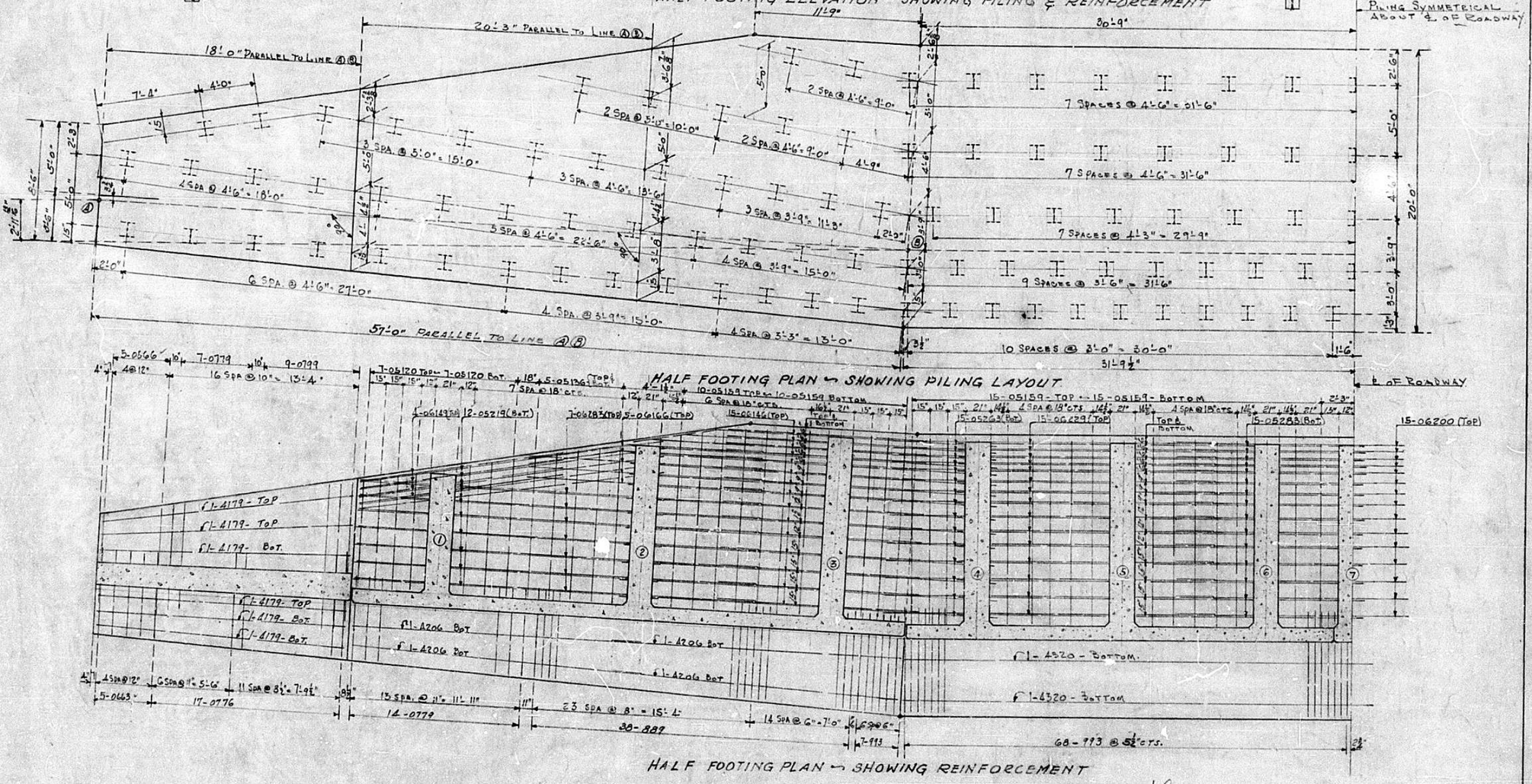
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHEET No. 3A
SUPPLEMENTAL



HALF FOOTING ELEVATION - SHOWING PILING & REINFORCEMENT

PILING SYMMETRICAL ABOUT ℄ OF ROADWAY



HALF FOOTING PLAN - SHOWING PILING LAYOUT

HALF FOOTING PLAN - SHOWING REINFORCEMENT

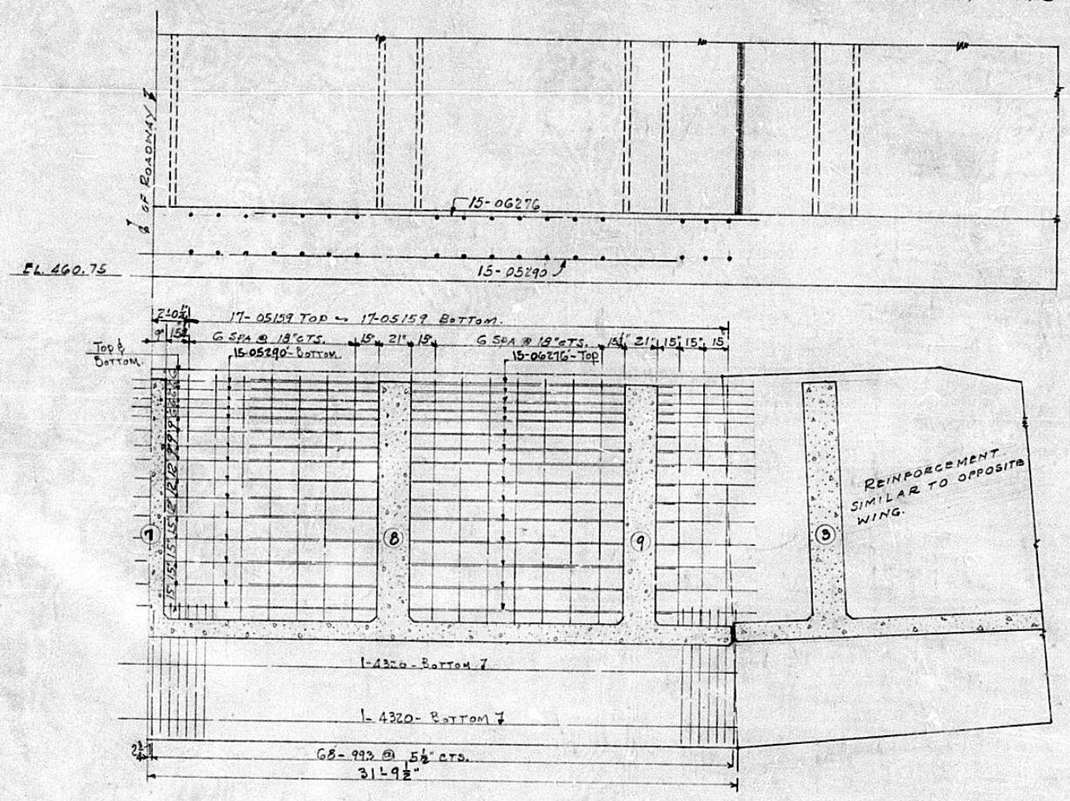
Void

STANDARD	COMPUTED	Peterson
	CHECKED	C.C. Murphy
	DRAWN	Peterson
	CHECKED	R.R.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 10-21-1940
H.T. Burch
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
DIVISION OF HIGHWAYS

REVISED FOOTING PLAN OF
ABUTMENT No. 3
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. ROUTE 172 - SECTION 15-B
PEORIA-TAZEWELL COUNTIES

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



PART FOOTING PLAN - SHOWING HEEL REINFORCEMENT

REINFORCEMENT NOT SHOWN - SAME AS SHOWN ON SHEET 3A. (SUPPLEMENTAL) OR ORIGINAL PLANS.

EXTRA BILL OF MATERIAL
FOR ABUTMENT NUMBER 3

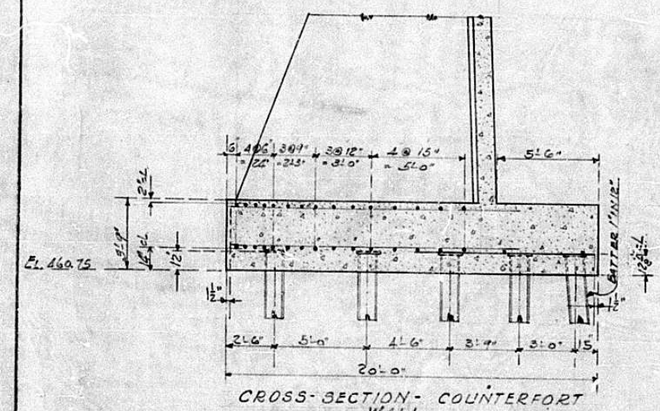
MARK	NO	SIZE	LENGTH	MARK	NO	SIZE	LENGTH
0776	34	⅞"ϕ	7'-6"	06146	30	⅝"ϕ	12'-6"
0779	42	"	7'-9"	05219	24	⅝"ϕ	21'-9"
0799	18	"	9'-9"	05263	30	"	26'-3"
889	76	1"ϕ	8'-9"	05283	15	"	28'-3"
993	150	1⅛"ϕ	9'-3"	06229	15	⅝"ϕ	22'-9"
06149	8	⅝"ϕ	12'-9"	06200	15	"	20'-0"
06283	14	"	28'-3"	06276	15	"	27'-6"
06166	10	"	16'-6"	05290	15	⅝"ϕ	29'-0"
05120	28	⅝"ϕ	12'-0"	05159	104	⅝"ϕ	15'-9"
05136	20	"	13'-6"				

CLASS X CONCRETE	CU.YDS.	138.2 *
REINFORCEMENT BARS	LBS.	17630 *
FURNISHING STEEL PILES	LBS.	669.810
DRIVING STEEL PILES	LIN FT.	12 638
PILE CAPS	LBS.	6300
CLASS A EXCAVATION	CU.YDS	150 *

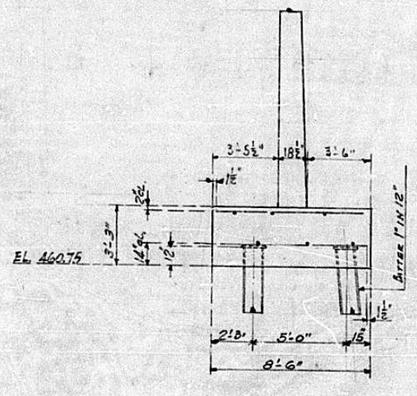
QUANTITIES MARKED THUS * TO BE ADDED TO QUANTITIES ON SHEET #3 OF ORIGINAL PLANS FOR FINAL QUANTITIES.

NOTES

ALL PILES SHALL BE 12" BEARING PILES
53* - 178 REQ'D - ESTIMATED LENGTH 71'-0"
PILES TO BE DRIVEN TO REFUSAL IN SHALE.
SEE SHEET #18 FOR PILE CAP DETAIL - NO POINTS REQ'D.
DESIGN OF ABUTMENT ABOVE TOP OF FOOTING THE SAME AS SHOWN ON ORIGINAL PLANS.



CROSS-SECTION - COUNTERFORT WALL



END OF WING

STANDARD	COMPUTED	Petersen
	CHECKED	R.B. Murphy
	DRAWN	Pet Petersen
	CHECKED	R.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 10-21-1940
H. T. Bowman
BRIDGE ENGINEER
PASSED H. Petersen
ENGINEER OF DESIGN
APPROVED [illegible]
CHIEF HIGHWAY ENGINEER

Void

REVISED FOOTING PLAN OF ABUTMENT No. 3
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. ROUTE 172 - SECTION 15-B
PEORIA-TAZEWELL COUNTIES

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

TOP PLAN

SHOWING RE'INFORCEMENT ELEVATION SHOWING OUTLINES & DIMENSIONS

END ELEVATION SHOWING REINFOREMENT

END ELEVATION SHOWING OUTLINES

DETAIL OF BAR - b28

DETAIL OF BAR C7

DETAIL OF BARS U95 - U96 - U97

SECTION A-A

FOOTING PLAN SHOWING PILE LAYOUT

NOTES

STEEL BEARING PILES SHALL BE DRIVEN TO REFUSAL IN SHALE.
ESTIMATED LENGTH OF PILES 71 FEET.
SEE SHEET NO. 18 FOR DETAIL OF PILE CAPS, PILE POINTS AND EMERGENCY SPLICE.

3"x 1 1/2" METAL SLEEVE FOR ANCHOR BOLTS. 28 REQ'D. SEE SHEET NO. 2 OF ORIGINAL PLANS FOR DETAIL.

BILL OF MATERIAL

MARK	No.	SIZE	LENGTH	REMARKS
440	222	1/2"ø	40'0"	STRAIGHT
4146	134	"	141'6"	"
4139	116	"	139'9"	"
456	112	"	5'6"	"
4163	16	"	16'3"	"
4280	76	"	28'0"	"
4250	16	"	25'0"	"
b28	92	"	11'5"	BENT
C7	20	"	12'0"	"
U95	16	"	8'9"	"
U96	10	1/2"ø	11'6"	"
U97	16	"	12'6"	"

CLASS X CONCRETE ------ CU.YDS.	366.0
REINFORCEMENT BARS ---- LBS.	8330
FURNISHING STEEL PILES --- LBS.	146760
DRIVING STEEL PILES ---- LINEAR	2769
PILE CHARGE POINTS ------ LBS.	3350
DRIVING STEEL TEST PILE --- EACH	1
CLASS A EXCAVATION ---- CU.YDS.	600

STANDARD	COMPUTED	R.W. Hansen
	CHECKED	R.J. Anderson
	DRAWN	R.J.T.
	CHECKED	P.M.
SPECIAL	ASS'N HELD	
	CHECKED	

EXAMINED 12-13-1960
H.T. Brown
BRIDGE ENGR.

PASSED W.C. Kruegler
ENGR. OF BRIDGES

APPROVED Ernest Lisenby
CHIEF HIGHWAY ENGR.

PIER FOR ABUT. #3 (PIER 2A)
ILLINOIS RIVER BRIDGE
HARVARD ST. — PEORIA
F.A. ROUTE 172 — SECTION 15-B
PEORIA - TAZEWELL COUNTIES

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

ROAD DISTRICT NO.	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FA 172	15B	Peoria Tazewell	31	4
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT - 688A		

SHEET NO. 3
30 SHEETS

SHOWING REINFORCEMENT FRONT FACE

ELEV. OF CANTILEVER WALL
SHOWING REINF'MT OF BACK FACE

ELEV. OF COUNTERFORT WALL - SHOWING REINFORCEMENT OF FRONT AND BACK FACES

REINFORCEMENT BEYOND THIS LINE SAME AS WING SHOWN

REINFORCEMENT BEYOND THIS LINE SAME AS OPPOSITE WING

FRONT FACE = F. F.
BACK FACE = B. F.

SECTIONAL PLAN

STANDARD	COMPUTED	Rud Hansen
	CHECKED	R.B. Murphy
	DRAWN	Rud J. Malecki
	CHECKED	R.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 7-15-1939
H. F. Bureau
BRIDGE ENGINEER

PASSED
ENGINEER OF DESIGN

APPROVED
CHIEF HIGHWAY ENGINEER

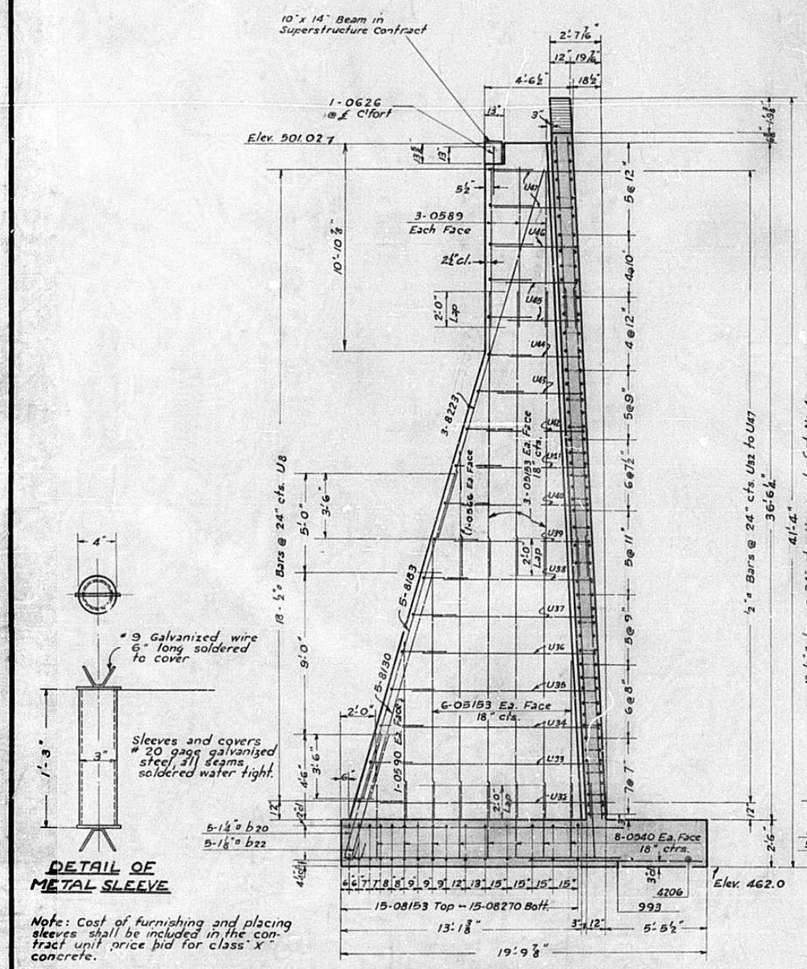
VOID

ABUTMENT NO. 3
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172, SECTION 15-B
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	5
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 609-A		

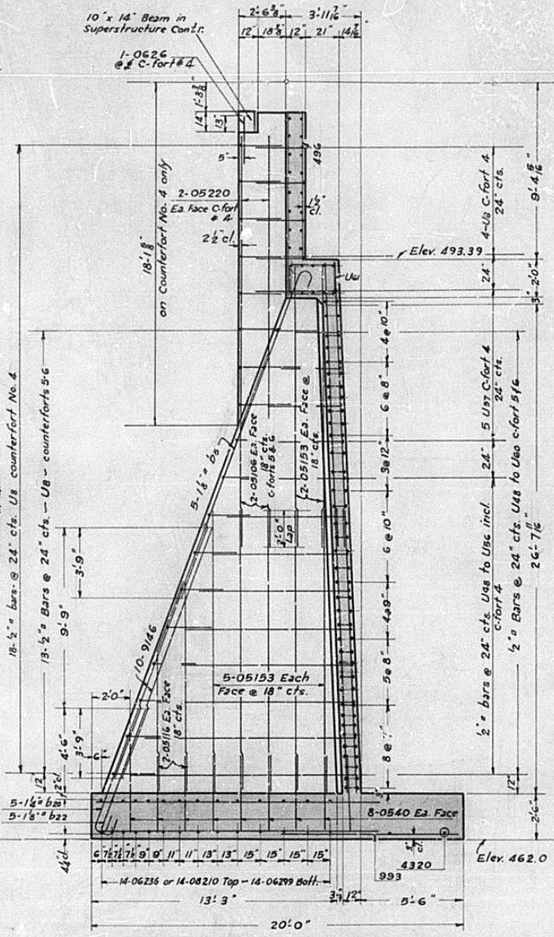
SHEET NO. 4
30 SHEETS



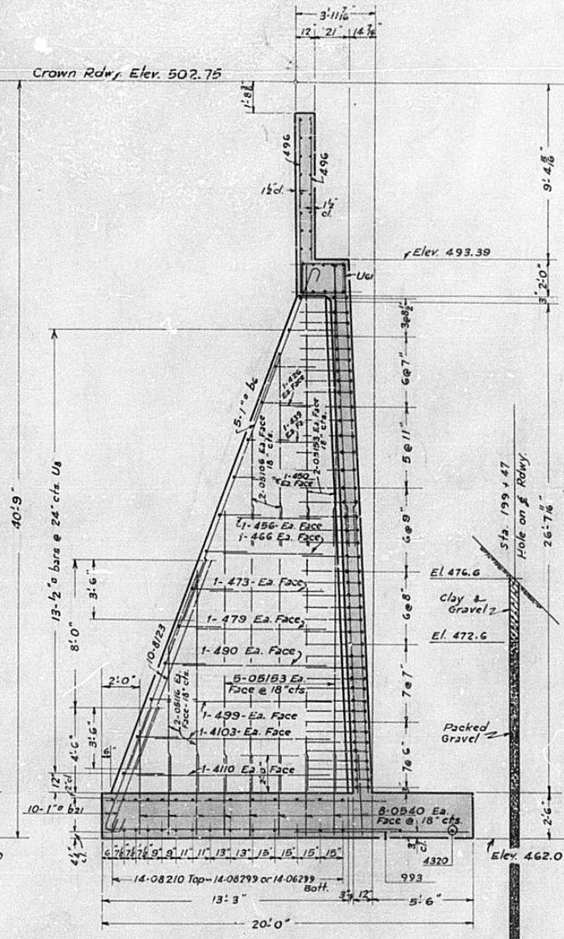
DETAIL OF METAL SLEEVE

Note: Cost of furnishing and placing sleeves shall be included in the contract unit price bid for class "X" concrete.

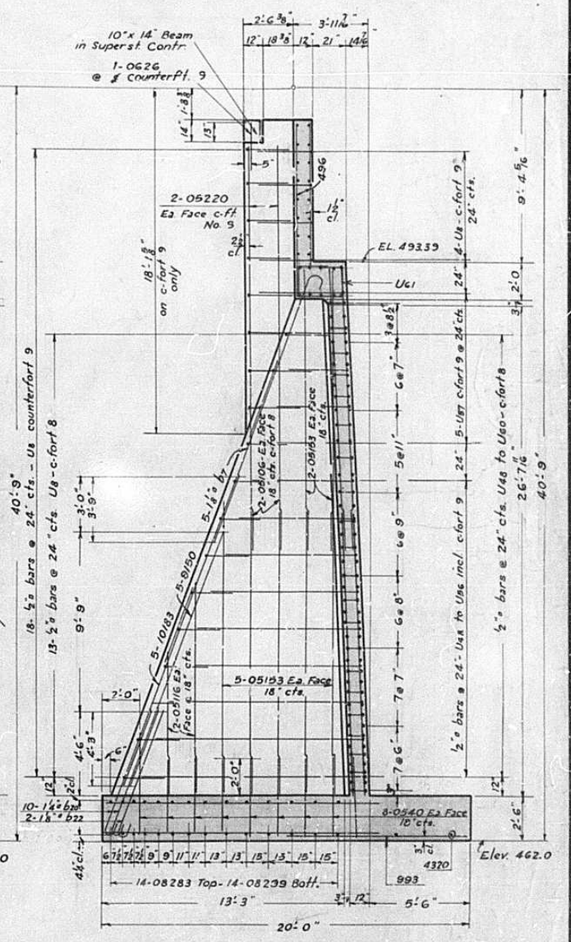
COUNTERFORT No. 3
2 REQUIRED



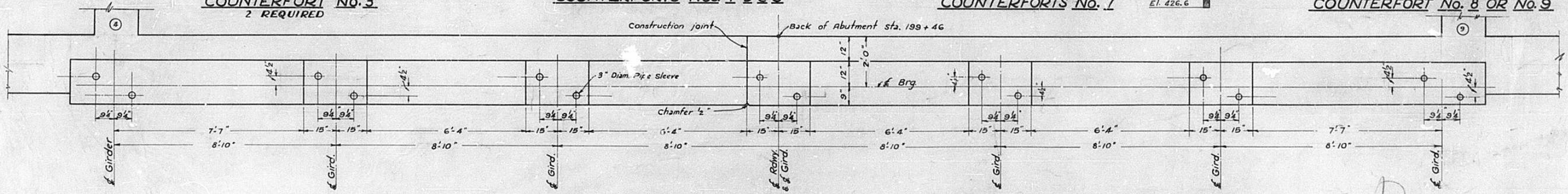
COUNTERFORTS Nos. 4-5 & 6



COUNTERFORTS No. 7



COUNTERFORT No. 8 OR No. 9



PLAN
SHOWING LOCATION OF PIPE SLEEVES FOR ANCHOR BOLTS

STANDARD	COMPUTED	R.W.Sommer
	CHECKED	R.B.Murphy
	DRAWN	R.W.S. HENRY D. TEEPLE
	CHECKED	R.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 12-15-1939
H. F. Bundy BRIDGE ENGINEER
PASSED [illegible] ENGINEER OF DESIGN
APPROVED [illegible] CHIEF HIGHWAY ENGINEER

1012

ABUTMENT NO. 3
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172. SECTION 15-B
PEORIA – TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609 A		

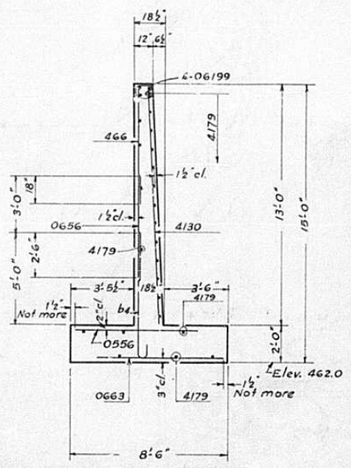
SHEET NO. 5
30 SHEETS

BILL OF MATERIAL

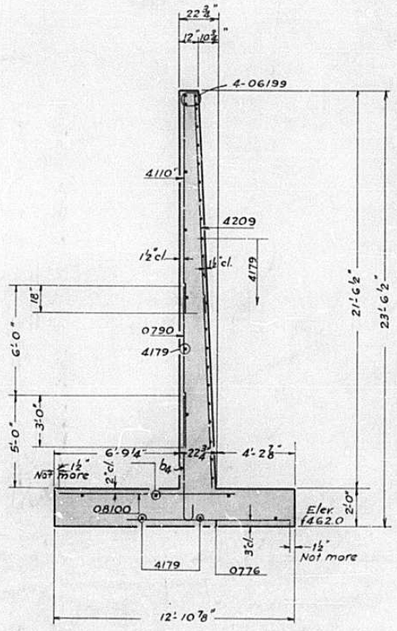
STRAIGHT BARS				STRAIGHT BARS				STRAIGHT BARS			
MARK	NO.	SIZE	LENGTH	MARK	NO.	SIZE	LENGTH	MARK	NO.	SIZE	LENGTH
06199	8	⅝	19'-9"	05153	476	⅝	15'-3"	0590	12	⅝	9'-0"
499	6	1"	3'-9"	450	14	1"	8'-0"	05220	8	"	22'-0"
480	4	"	8'-0"	4169	18	"	16'-9"	0626	4	⅝	2'-6"
4120	4	"	12'-0"	05239	8	⅝	23'-9"				
4179	50	"	17'-9"	06239	8	⅝	23'-9"	05106	16	⅝	10'-6"
4130	4	"	13'-0"	05323	6	⅝	32'-3"				
4139	2	"	13'-9"	06323	6	⅝	32'-3"	8230	6	1"	23'-0"
4159	2	"	15'-9"	06389	40	"	38'-9"	876	4	"	7'-6"
4209	2	"	20'-9"	08389	24	1"	38'-9"	8200	6	"	20'-0"
466	8	"	6'-6"	4300	10	1"	30'-0"	8143	10	"	14'-3"
479	8	"	7'-9"	06300	13	⅞	30'-0"	899	8	"	9'-9"
490	8	"	9'-0"	05300	13	⅞	30'-0"	8223	6	"	22'-3"
4103	18	"	10'-3"	496	110	1"	9'-6"	8183	10	"	18'-3"
473	4	"	7'-3"	0540	252	¾	4'-0"	8130	10	"	13'-0"
486	6	"	8'-6"	~~08120~~	~~28~~	1¼	~~18'-0~~	9146	30	1⅛	14'-6"
499	8	"	9'-9"	~~08130~~	~~20~~	"	~~13'-6~~	8123	10	1"	12'-3"
4110	8	"	11'-0"	~~08159~~	~~104~~	"	~~15'-9~~	9150	10	1⅛	15'-0"
0656	22	¾	5'-6"	~~0779~~	~~38~~	¾	~~2'-9~~	10183	10	1⅛	18'-3"
0790	28	⅞	9'-0"	~~993~~	~~206~~	1½	~~9'-3~~	426	2	½	2'-6"
0566	14	⅝	6'-6"	4206	8	1"	20'-6"				
~~0783~~	~~12~~	⅞	~~8'-3~~	4320	4	"	32'-0"				
~~08100~~	~~26~~	1"	~~10'-0~~	~~08290~~	~~28~~	1⅛	~~29'-0~~				
0663	10	¾	6'-3"	~~08223~~	~~28~~	"	~~23'-3~~	456	2	½	5'-6"
~~0776~~	~~38~~	⅞	~~7'-6~~	~~08153~~	~~30~~	"	~~18'-3~~				
06223	16	⅞	22'-3"	~~08270~~	~~30~~	"	~~27'-0~~				
05116	48	⅝	11'-6"	~~06276~~	~~14~~	¾	~~25'-6~~	4113	20	½	11'-3"
0589	24	"	8'-9"	~~08299~~	~~14~~	"	~~29'-9~~	4310	16	"	31'-0"
0553	20	"	5'-3"	~~08210~~	~~14~~	1⅛	~~21'-0~~	4336	18	"	33'-0"
0599	4	"	9'-9"	~~08283~~	~~14~~	"	~~28'-3~~				
0579	32	"	7'-9"	~~08299~~	~~14~~	"	~~29'-9~~				
05120	6	"	12'-0								

BENT BARS				BENT BARS				BENT BARS			
MARK	NO.	SIZE	LENGTH	MARK	NO.	SIZE	LENGTH	MARK	NO.	SIZE	LENGTH
b20	65	1¼	8'-3"	U_8	178	½	6'-6"	U_{35}	2	½	22'-0"
b21	20	1"	8'-0"	U_9	2	"	17'-6"	U_{36}	2	"	20'-6"
b22	29	1⅛	8'-3"	U_{10}	2	"	16'-0"	U_{37}	2	"	19'-3"
				U_{11}	2	"	14'-6"	U_{38}	2	"	17'-9"
b4	50	1⅜	8'-3"	U_{12}	2	"	13'-3"	U_{39}	2	"	16'-6"
b5	15	"	20'-9"	U_{13}	2	"	11'-9"	U_{40}	2	"	15'-0"
b6	5	1"	22'-0"	U_{14}	2	"	10'-6"	U_{41}	2	"	13'-9"
b7	10	1⅝	17'-6"	U_{15}	2	"	9'-0"	U_{42}	2	"	12'-3"
b8	10	1⅞	32'-9"	U_{16}	2	"	7'-6"	U_{43}	2	"	11'-0"
b9	10	"	35'-3"	U_{17}	2	"	6'-3"	U_{44}	2	"	9'-6"
				U_{18}	2	"	4'-9"	U_{45}	4	"	9'-3"
W1	24	1⅞	39'-9"	U_{19}	2	"	23'-0"	U_{46}	2	"	9'-0"
W2	8	⅞	39'-9"	U_{20}	2	"	21'-6"	U_{47}	4	"	8'-9"
W3	14	"	31'-0"	U_{21}	2	"	20'-0"	U_{48}	5	"	26'-3"
W4	5	1"	31'-3"	U_{22}	2	"	18'-6"	U_{49}	5	"	24'-9"
W5	16	⅞	35'-9"	U_{23}	2	"	17'-3"	U_{50}	5	"	23'-0"
W6	5	⅞	35'-9"	U_{24}	2	"	15'-9"	U_{51}	5	"	21'-3"
W7	16	⅞	34'-6"	U_{25}	2	"	14'-3"	U_{52}	5	"	19'-9"
W8	4	⅞	34'-6"	U_{26}	2	"	12'-9"	U_{53}	5	"	18'-0"
W9	16	⅞	33'-6"	U_{27}	2	"	11'-3"	U_{54}	5	"	16'-3"
W10	4	1"	33'-6"	U_{28}	2	"	9'-9"	U_{55}	5	"	14'-9"
W11	16	1"	5'-0"	U_{29}	2	"	8'-3"	U_{56}	5	"	13'-0"
				U_{30}	2	"	6'-9"	U_{57}	19	"	11'-3"
				U_{31}	2	"	5'-3"	U_{58}	3	"	9'-6"
				U_{32}	2	"	26'-0"	U_{59}	3	"	8'-0"
				U_{33}	2	"	24'-9"	U_{60}	3	"	6'-3"
				U_{34}	2	"	23'-3"	U_{61}	42	"	9'-6"

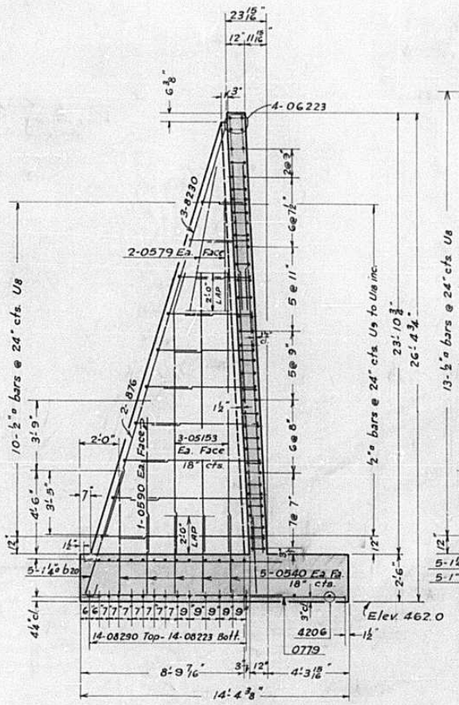
Class X Concrete	Cu. Yds.	637.1
Reinforcement Bars	Lbs.	~~76310~~ 51,370
Class A Excavation	Cu. Yds.	1950



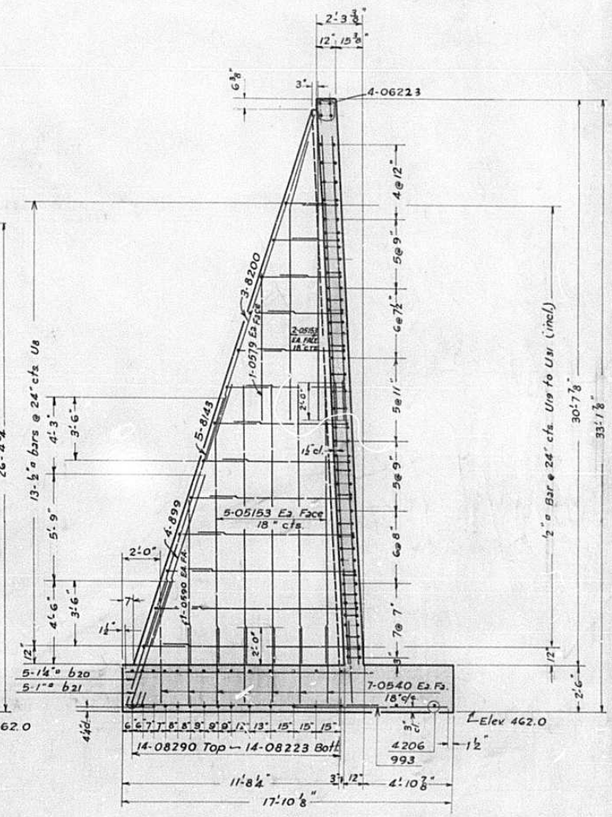
END OF WING



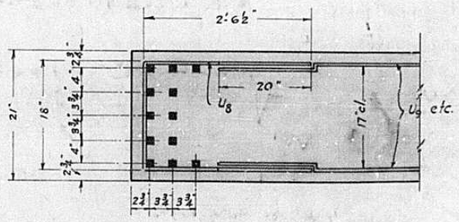
SECTION OF WALL
18'-0" FROM THE END



COUNTERFORT No. 1
2 REQUIRED



COUNTERFORT No. 2
2 REQUIRED



SECTION THRU COUNTERFORT
SHOWING LOCATION OF b20-b21-b22 BARS

STANDARD	COMPUTED	R.W. Hansen
	CHECKED	P.B. Murphy
	DRAWN	R.W.H. - Henry & Jeffords
	CHECKED	P.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 12-15-1939
H. T. Burnside BRIDGE ENGINEER
PASSED [signature] ENGINEER OF DESIGN
APPROVED [signature] CHIEF HIGHWAY ENGINEER

Rev. 10-21-40 - R.W.H. CHRD. R.B.V.

10 12

ABUTMENT NO. 3
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172, SECTION 15-B
PEORIA TAZEWELL COUNTIES

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

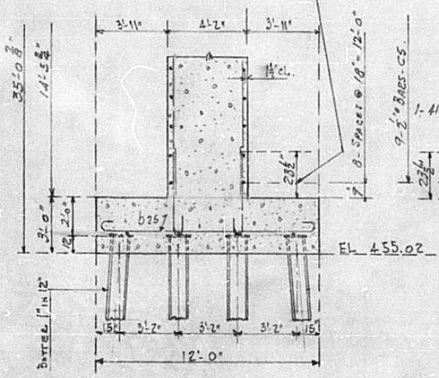
SHEET No. 6A
SUPPLEMENTAL

EXTRA.
BILL OF MATERIAL - PIER #3

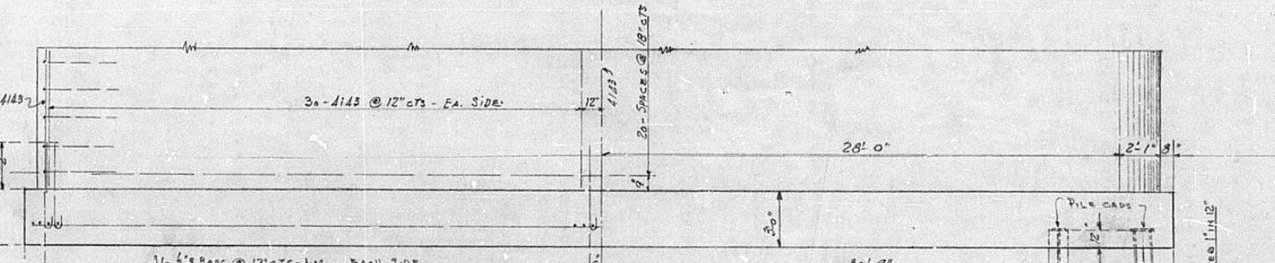
ITEM	QUANTITY
CLASS X CONCRETE ----- Cu. Yds.	27.3
FURNISHING STEEL PILES --- Lbs.	201,820
DRIVING STEEL PILES ---- Lin. Ft.	3,808
PILE CAPS ------- Lbs.	1,980
CLASS A EXCAVATION ---- Cu. Yds.	30

NOTE: ALL PILES ARE 12"-53# STEEL BEARING PILES - 56 REQUIRED - ESTIMATED LENGTH 68 FT. FOR DETAIL OF PILE CAP SEE SHEET No. 18. PILES TO BE DRIVEN TO REFUSAL IN SHALE.

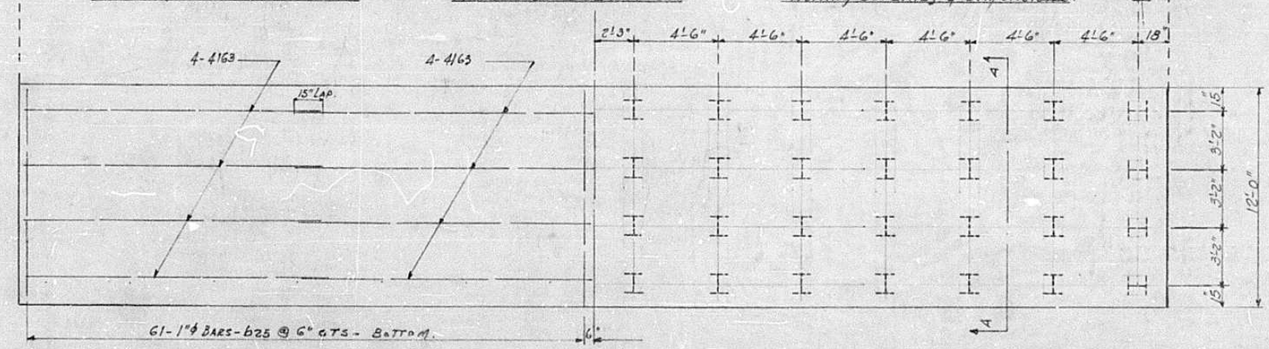
NOTE: SIZES, NUMBER, QUANTITY AND SPACING OF REINFORCEMENT BARS THE SAME AS SHOWN ON SHEET No. 6 EXCEPT -415 DIMENSION.



SECTION A-A



SHOWING REINFORCEMENT — PART SIDE ELEVATION — SHOWING OUTLINES & DIMENSIONS.



SHOWING REINFORCEMENT — FOOTING PLAN — SHOWING PILE SPACING

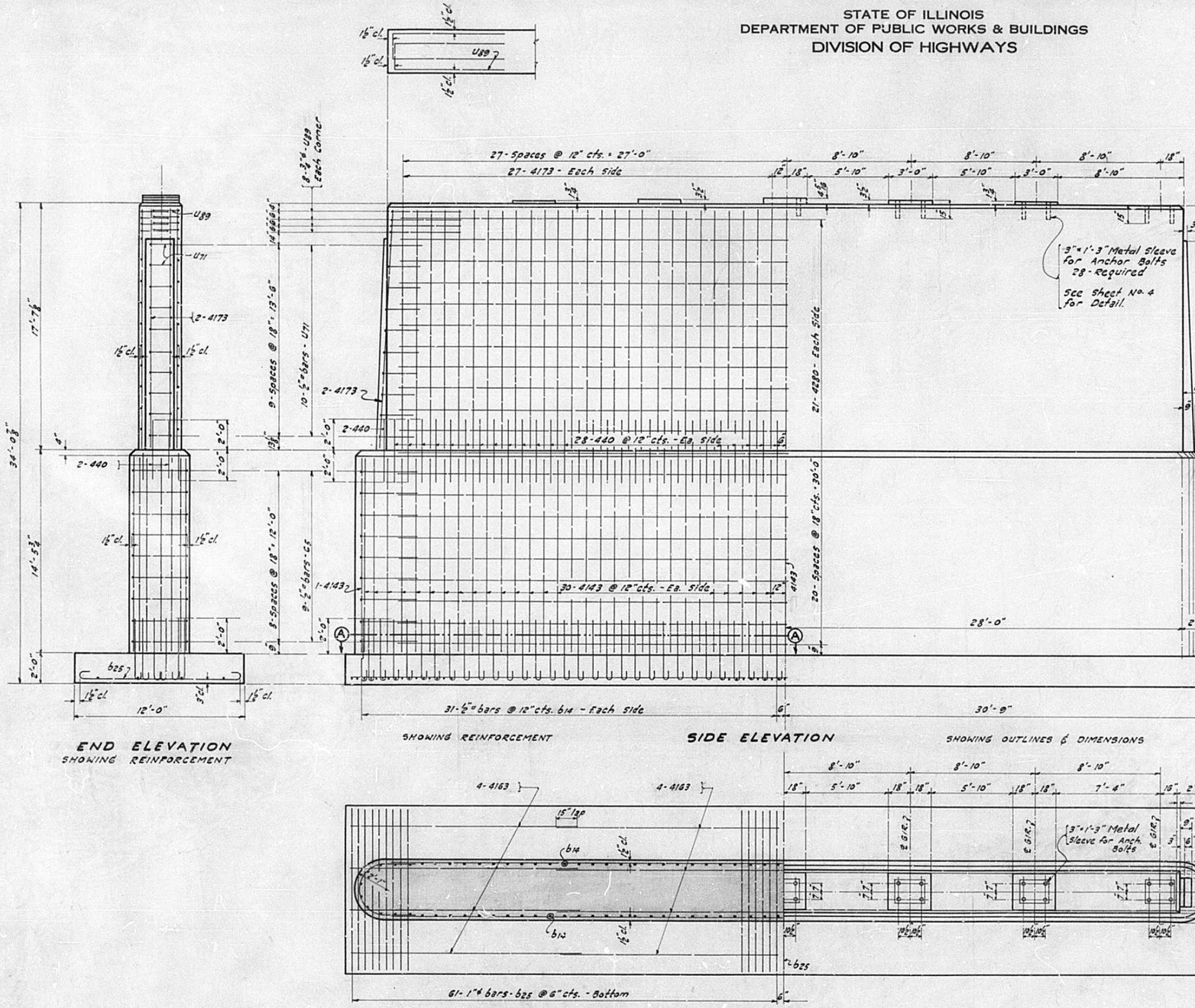
STANDARD	COMPUTED	[illegible]
	CHECKED	R.B. Murphy
	DRAWN	[illegible]
	CHECKED	E.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

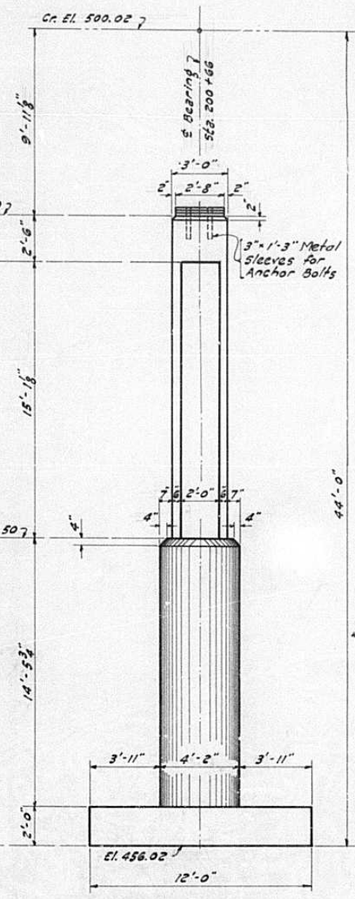
EXAMINED 10-2- 1940
H. T. Burton
BUREAU ENG.
PASSED [illegible]
ENG. OF DESIGN
APPROVED [illegible]
CHIEF HIGHWAY ENG.

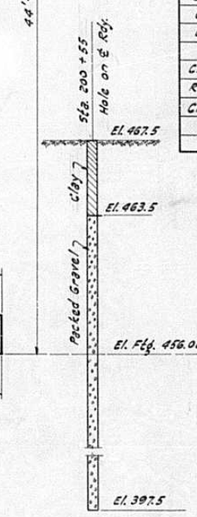
REVISED FOOTING PLAN
PIER No. 3
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 - SECTION 15-B
PEORIA - TAZEWELL COUNTIES

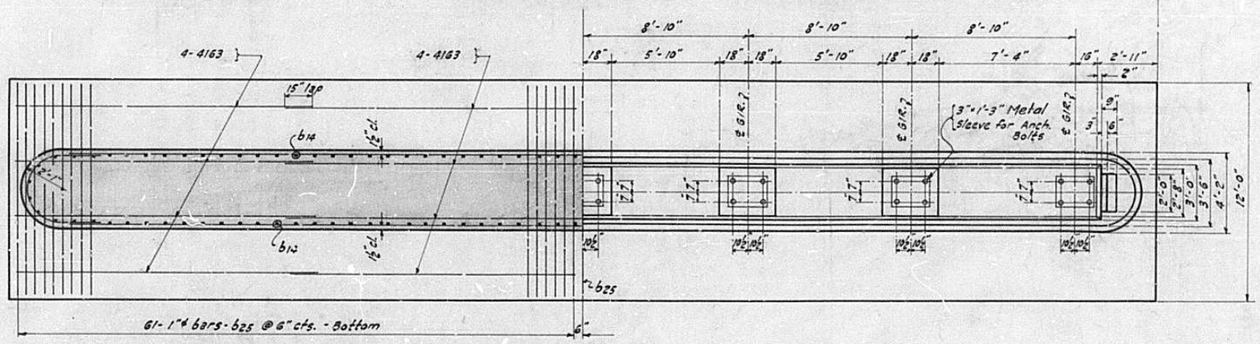
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DISTRICT ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6
FA 172	15B	Peoria, Tazewell	31	7	30 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: 609-A			









PIER No. 3
BILL OF MATERIAL

STRAIGHT BARS

Mark	No.	Size	Length
4143	124	½" ϕ	14'-3"
440	116	½" ϕ	4'-0"
4173	114	½" ϕ	17'-3"
4280	84	½" ϕ	28'-0"
4163	16	½" ϕ	16'-3"

BENT BARS

Mark	No.	Size	Length
b25	123	1" ϕ	14'-3"
b14	124	½" ϕ	4'-6"
C5	18	½" ϕ	10'-0"
U71	20	½" ϕ	6'-9"
U89	16	⅜" ϕ	12'-3"

Class "X" Concrete	Cu. Yds.	2978
Reinforcement Bars	Lbs.	11500
Class "A" Excavation	Cu. Yds.	310

STANDARD	COMPUTED	Ost Hansen
	CHECKED	R.B. Murphy
	DRAWN	Curt J. Malesh
	CHECKED	R.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 12-15-1939
H. T. Burch
BRIDGE ENGINEER
PASSED Maclennan
ENGINEER OF DESIGN
APPROVED Frank T. Sheppard
CHIEF HIGHWAY ENGINEER

PIER No. 3
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172, SECTION 15-B
PEORIA - TAZEWELL COUNTIES

SHEET No. 7A
SUPPLEMENTAL.

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

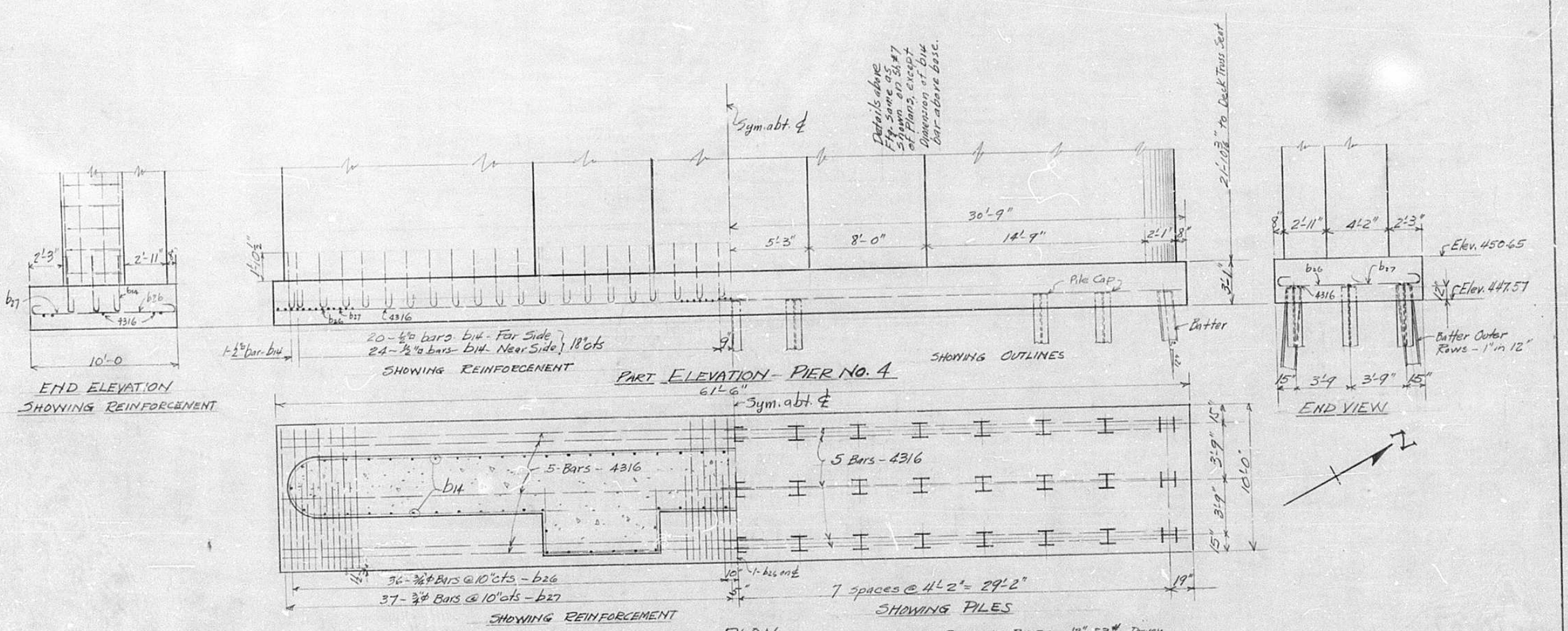
EXTRA

BILL OF MATERIAL — PIER 4

Mark	No	Size	Length	Type
b14	90	½"□	4'-6"	Bent
b26	73	¾"ϕ	7'-3"	"
b27	74	¾"ϕ	12'-0"	"
4316	10	½"□	31'-6"	Straight

Class X Concrete - Cu. Yds	70.2
Reinforcement Bars - Lbs	2740.
Furnishing Steel Piles - Lbs	145,490
Driving Steel Piles - Lin. Ft.	2745
Pile Caps - Lbs	1590
Class A Excavation - Cu. Yds.	30

Notes:-
Work this sheet with Sheet No. 7 of Plans.
For Details not given see Sheet No. 7
For Bent Bar Details, see Sheet No. 30.
For Detail of Pile Cap, see Sheet No. 18



STANDARD	COMPUTED	R.P.M. Murphy
	CHECKED	P.M.
	DRAWN	R.P.M.
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 10-2-1940
A. J. Bureau
DISTRICT ENGINEER.
PASSED
ENGINEER OF BRIDGES
APPROVED
CHIEF HIGHWAY ENGINEER.

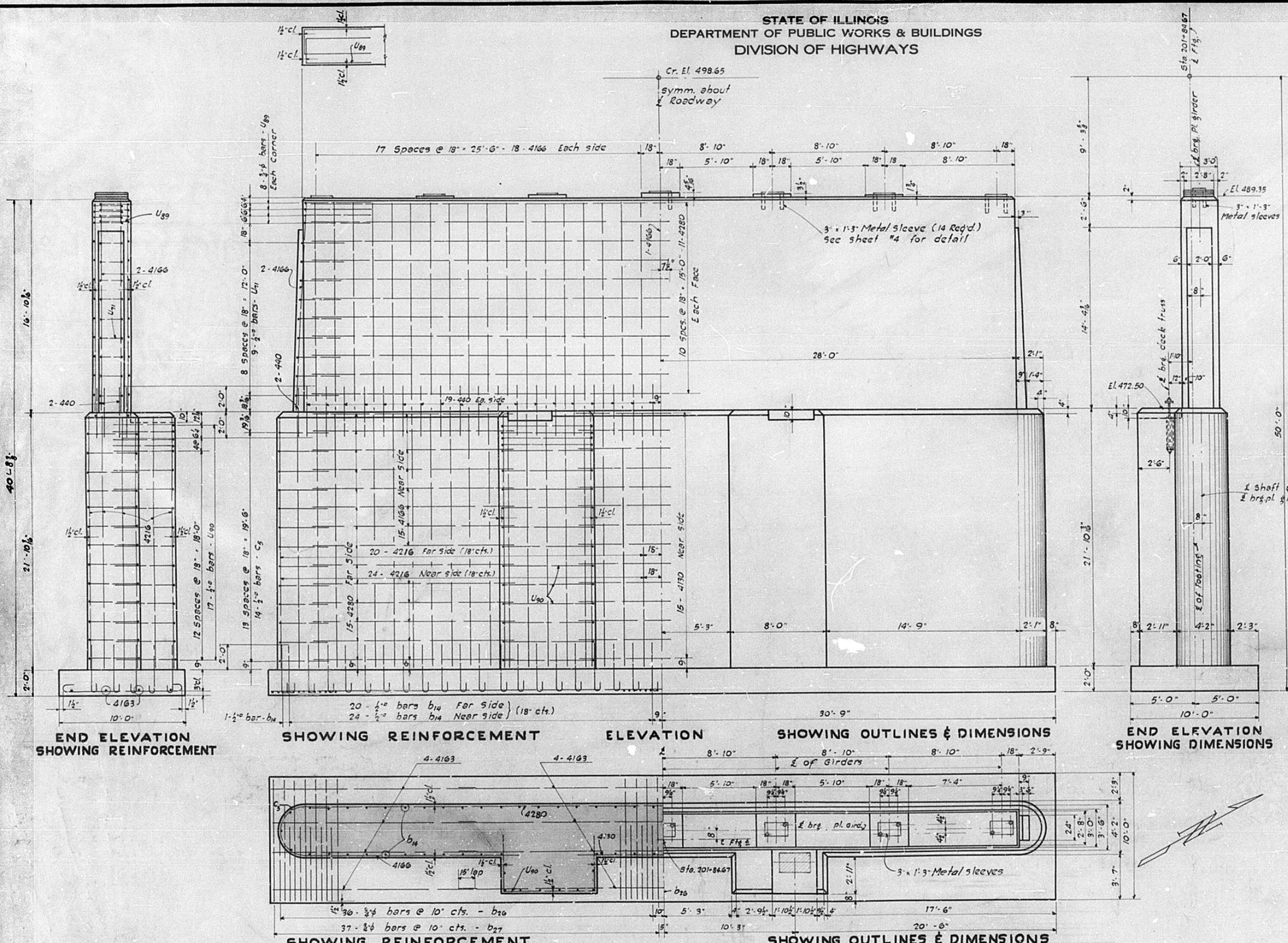
REVISED FOOTING PLAN
PIER No. 4

ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. ROUTE 172 - SECTION 15B
PEORIA - TAZEWELL COUNTIES

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

ILLINOIS ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	8
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 669-A		

SHEET NO. 7
30 SHEETS



PIER NO. 4
BILL OF MATERIAL

STRAIGHT BARS			
MARK	NO.	SIZE	LENGTH
4216	90	½ϕ	21'-6"
440	80	"	4'-0"
4166	108	"	16'-6"
4130	15	"	13'-0"
4280	74	"	28'-0"
4163	16	"	16'-3"
BENT BARS			
MARK	NO.	SIZE	LENGTH
b_{26}	73	¾ϕ	7'-3"
b_{27}	74	"	12'-0"
b_{14}	90	½ϕ	4'-6"
C_5	28	"	10'-0"
U_{71}	18	"	6'-9"
U_{89}	16	¾ϕ	12'-3"
U_{90}	34	½ϕ	17'-3"
Class X Concrete		Cu.Yds.	388.5
Reinforcement Bars		Lbs.	9190
Class A Excavation		Cu.Yds.	320
Structural steel		Lbs.	400

BILL OF MATERIAL FOR ANCHOR BOLT ASSEMBLY DECK TRUSS

Pipe Sleeves	4
Pipe Caps	4
Rods 1½ϕ x 4'-4"	4
Hex. Nuts	8
Bars 4" x ½" x 2'-10"	2

Note:- See sheet #15 for detail of Anchor Bolt Assembly.

STANDARD	COMPUTED	R.S. Stevens
	CHECKED	R.B. Murphy
	DRAWN	C.L. HAZLETT
	CHECKED	R.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

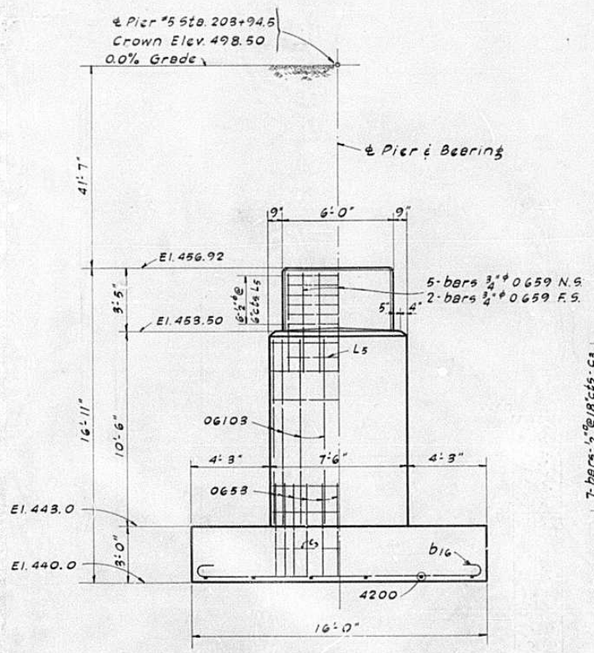
EXAMINED 12-15-1939
H. F. Bureau BRIDGE ENGINEER
PASSED Thos. Thomson ENGINEER OF DESIGN
APPROVED Earl Sibert CHIEF HIGHWAY ENGINEER

PIER NO. 4
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172, SECTION 15-B
PEORIA-TAZEWELL COUNTIES

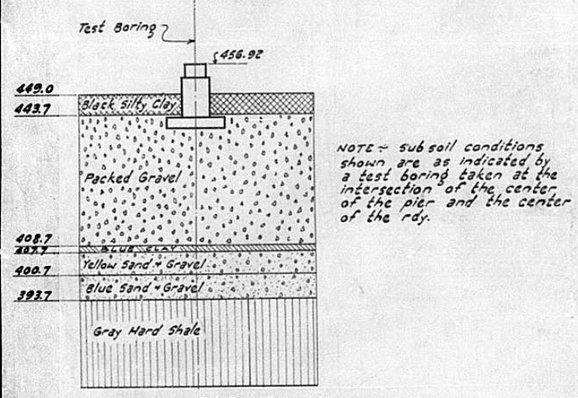
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	9
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609 A		

SHEET NO. 8
30 SHEETS

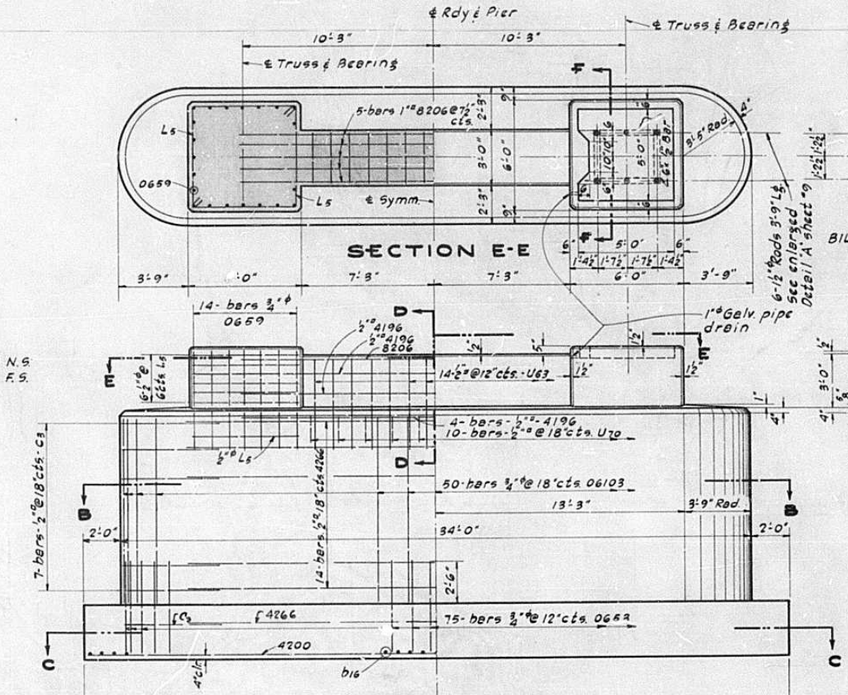


END ELEVATION

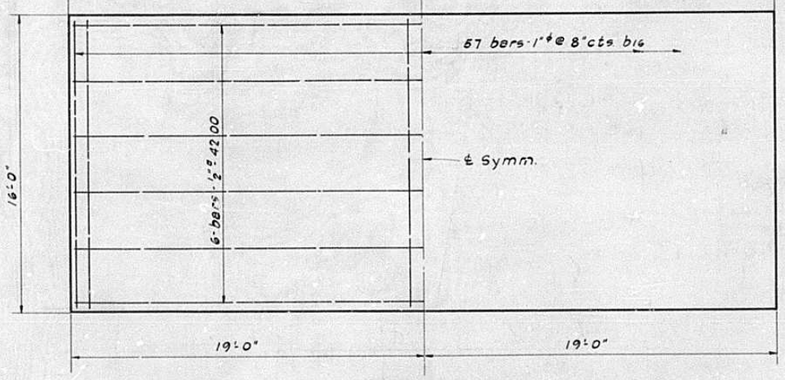


BORING DATA

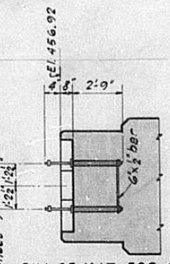
NOTE - sub soil conditions shown are as indicated by a test boring taken at the intersection of the center of the pier and the center of the rdy.



SIDE ELEVATION
PIER 5

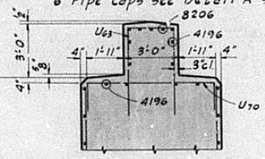


SECTION C-C

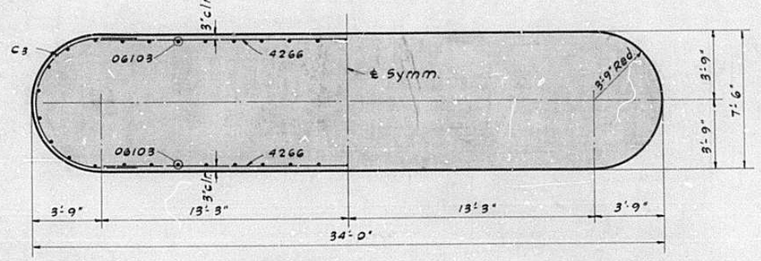


SECTION F-F

2-Assemblies Req'd.
BILL OF MAT. FOR ONE ANCHOR BOLT ASSEMBLY
6-Rods 1½"ϕ x 3'-9" Long - 2 Hex. nut each. Thread both ends - 4½"
6- 6" ϕ Pipe sleeves. Thread 1 end 1½"
2- Bars 6" x ½" x 3'-10"
2- Bars 6" x ½" x 3'-0"
6- Pipe caps see Detail 'A' sheet #9



SECTION D-D



SECTION B-B

REINFORCEMENT BARS

BAR	NUMBER PIER 5	PIER 6	PIER 8	PIER 9	PIER 14	PIER 15	SIZE	LENGTH	
b11					71		1¼"ϕ	20'-0"	BENT BARS
b12						71	1"ϕ	19'-8"	
b15		48	47				¾"ϕ	13'-3"	
b16	57						1"ϕ	18'-0"	
b18				77			1"ϕ	16'-8"	
C3	16	30	28	94	50	50	½"ϕ	15'-0"	
U63	14	14	14	14	14	14	½"ϕ	13'-0"	
U70	10	10	10	10	10	10	½"ϕ	9'-6"	
Ls	28	28	28	28	68	92	½"ϕ	12'-0"	
4186		12	12		18	16	½"ϕ	18'-6"	STRAIGHT BARS
4200	12			14			½"ϕ	20'-0"	
4130		60	56	68	100	100	½"ϕ	13'-0"	
4266	16						½"ϕ	26'-6"	
4196	8	8	8	8	8	8	½"ϕ	19'-6"	
06266				75	50		¾"ϕ	26'-6"	
06203		50					¾"ϕ	20'-3"	
06103	50						¾"ϕ	10'-3"	
06146				75			¾"ϕ	14'-6"	
0696			50				¾"ϕ	9'-6"	
06153			50	75	75	50	¾"ϕ	15'-3"	
0653	75				75	75	¾"ϕ	5'-3"	
0650		75	75	75			¾"ϕ	5'-0"	
06106					48		¾"ϕ	10'-6"	
0663						48	¾"ϕ	6'-3"	
0659	42	42	42	42			¾"ϕ	5'-9"	
8206	5	5	5	5	5	5	1"ϕ	20'-6"	

BILL OF MATERIAL

ITEM		PIER-5	PIER-6	PIER-8	PIER-9	PIER-14	PIER-15
Reinforcement Bars	Lbs.	6170	5580	5830	10960	16830	10850
Class "A" Concrete	Cu. Yds.	174.6	242.3	261.4	324.9	492.8	467.2
Seal Coat Concrete	Cu. Yds.			67.2	87.4	377.8	337.5
Structural Steel	Lbs.	1265	1385	1385	1265	1265	1385
Furnishing Steel Piles	Lbs.		96460	124660	180200	163560	143520
Pile Caps & Points	Lbs.		3440	3780	5590	6280	4820
Driving Steel Piles	Lin. Ft.		1800	2332	3380	3066	2688
Driving Steel Test Piles	Each		2	2	2	2	2
Cofferdam	Each		1	1	1	1	1
Class "A" Excavation	Cu. Yds.	280					
Class "B" Excavation	Cu. Yds.		227	246	466	1265	1150

For Details of Bent Bars - See Sh. #30

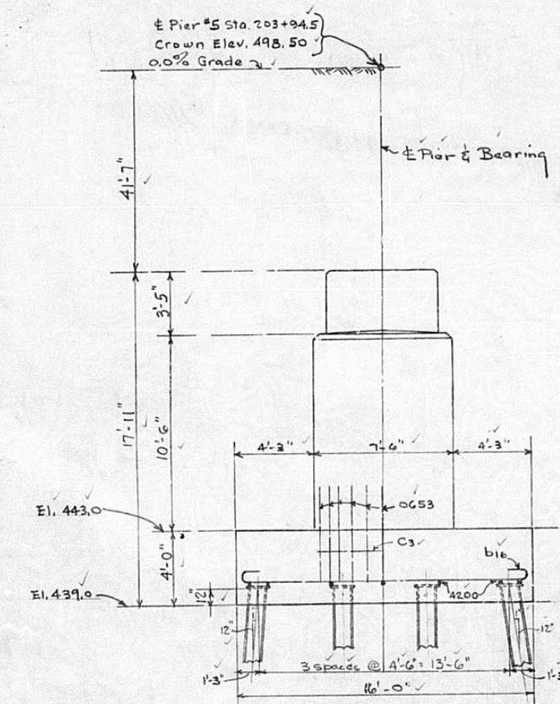
STANDARD	COMPUTED	W.S. Hennessy
	CHECKED	P. Midkiff
	DRAWN	W.S.H. L.P.
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 12-15-1939
H. F. Bowers
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

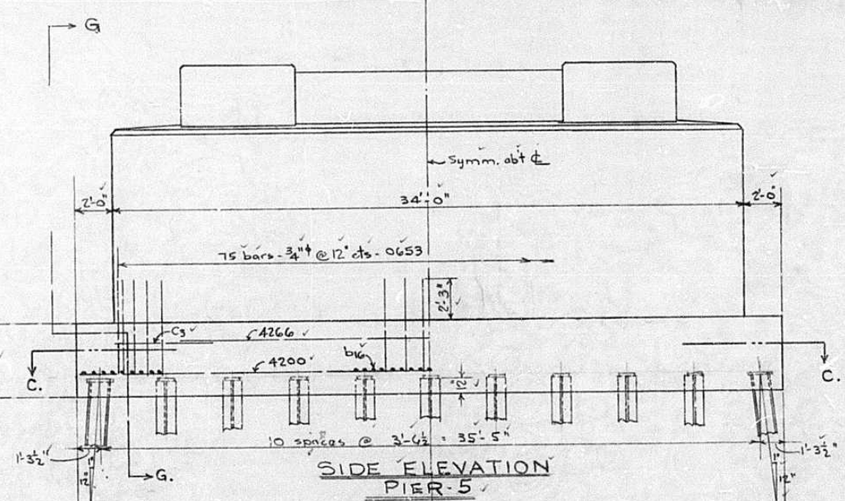
PIER NO. 5
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172, SECTION 15-B
PEORIA - TAZEWELL COUNTIES

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

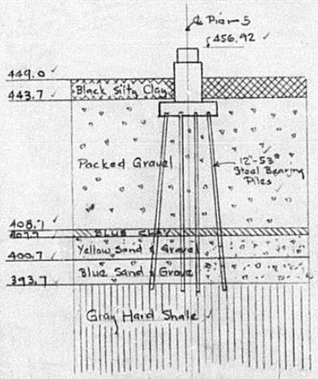
Sheet 8-A
Supplemental



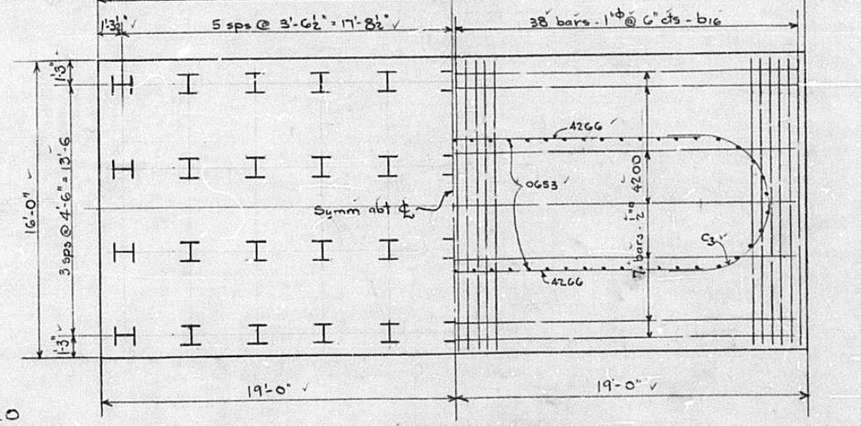
SECTIONAL ELEVATION G-G.



SIDE ELEVATION
PIER-5



BORING DATA



SECTION C-C

All piles are 12"-53# Steel Bearing piles. 44 Raquired. Estimated length = 51 ft. Piles to be driven to refusal in shale.

STANDARD	COMPUTED	P. Michelsen
	CHECKED	Rutherman
	DRAWN	P. Michelsen
	CHECKED	Rutherman
SPECIAL		

EXAMINED 10-2-1940
H. F. Bruce
State Engineer
PASSED Washburn
Engineer of Design
APPROVED Lunt Liebman
Chief Highway Engineer

NOTE:—
Work this sheet with sheet # 8 of plans.
For Details not shown on this sheet see sheet # 8
For Bent bar details see sheet # 30.
For Details of pile Cap see sheet # 18

PIER # 5
EXTRA BILL OF MATERIAL

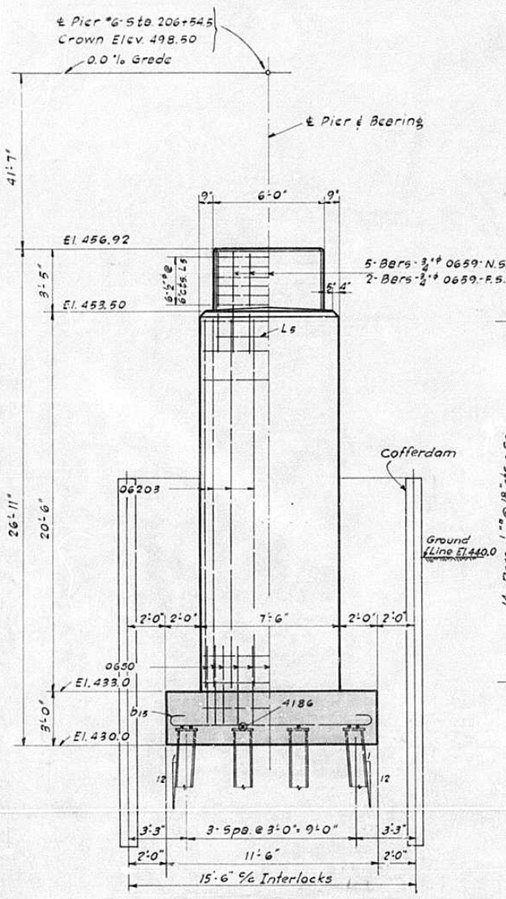
Bar	No	Size	Length
b16	76	1"ϕ	18'-0"
C3	2	½"□	15'-0"
4200	14	½"□	20'-0"
4266	2	½"□	26'-6"
0653	75	¾"ϕ	5'-3"
Reinforcement Bars Lbs.			4550
Class X Concrete Cu Yds.			90.1
Furnishing Steel Piles Lbs.			118,930
Pile Caps Lbs.			1560
Driving Steel Piles Lin. Ft.			2244
Class "A" Excavation Cu Yds.			30

PIER # 5
REVISED FOOTING PLAN
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. ROUTE 172, SECTION 15-B
PEORIA - TAZEWELL COUNTIES

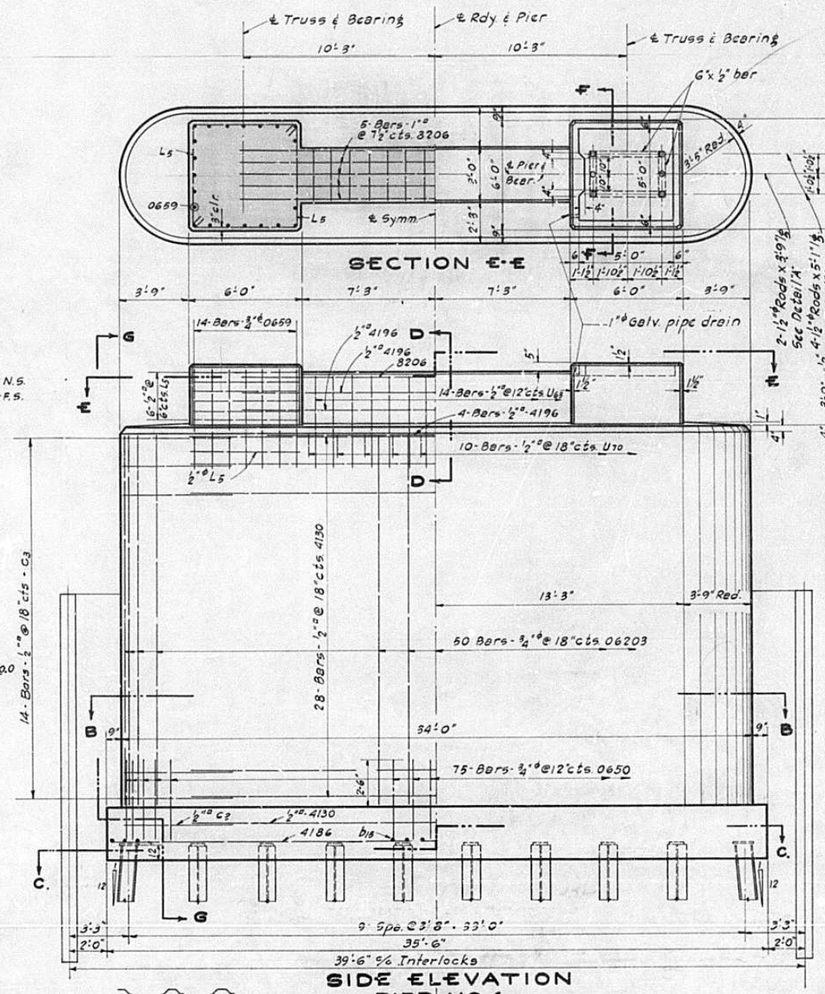
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -	609A	

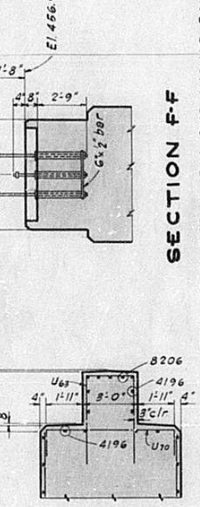
SHEET NO. 9
30 SHEETS



SECTIONAL ELEVATION G-G



SIDE ELEVATION
PIER NO. 6

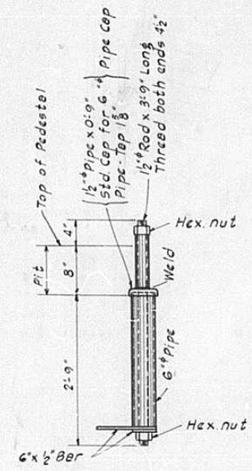


SECTION E-E

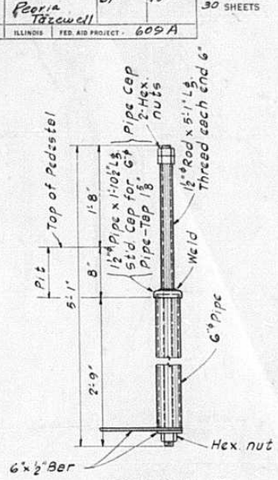
SECTION D-D

SECTION F-F

BILL OF MATERIAL FOR ONE ANCHOR BOLT ASSEMBLY - 2 REQUIRED
4-Rods 1½"ø x 5'-1" Lg. - 2 Hex. nuts | Thread 2 ends 6"
2-Rods 1½"ø x 3'-9" Lg. - 2 Hex. nuts | Thread 2 ends 4½"
6-Pipe sleeves 6"ø. Thread one end 1½"
2-Bars 6"x½"x 4'-4"
2-Bars 6"x½"x 2'-8"
2-Pipe Caps see Detail "A"
2-Pipe Caps see Detail "B"



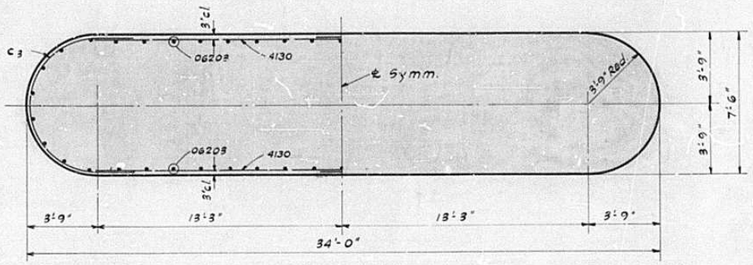
DETAIL A



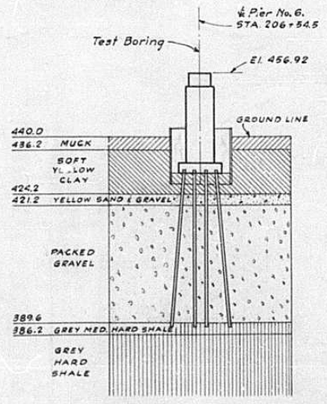
DETAIL B

ENLARGED DETAIL OF ANCHOR BOLT

NOTE:
Remove all water from pipe sleeves, grease threads and seal as shown. Paint cap and exposed metal one coat of red lead paint.

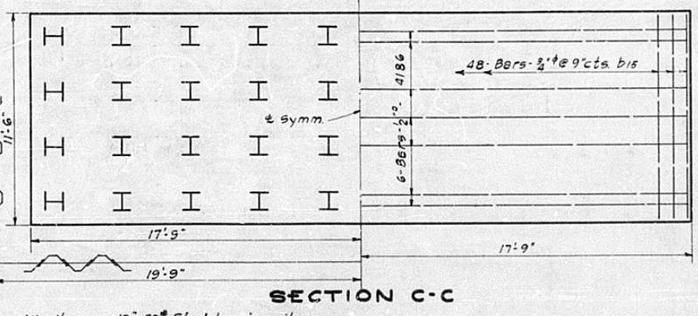


SECTION B-B



BORING DATA

NOTE:
Sub soil conditions shown are as indicated by a test boring taken at the intersection of the center of the pier and the center of the rdy. Steel bearing piles shown are 12"@ 53# driven to refusal in shale.



SECTION C-C

All piles are 12"-53# Steel bearing piles.
40-Required. Estimated length = 45 ft.
For detail of pile Cap & Point see Sh't No. 18.

FOR REINFORCEMENT BAR LIST & BILL OF MATERIAL SEE SHEET NO. 8

FOR DETAILS OF BENT BARS SEE SHEET NO. 30

STANDARD	COMPUTED	W.B. Harrison
	CHECKED	D. Midwinter
	DRAWN	W.S.H.
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

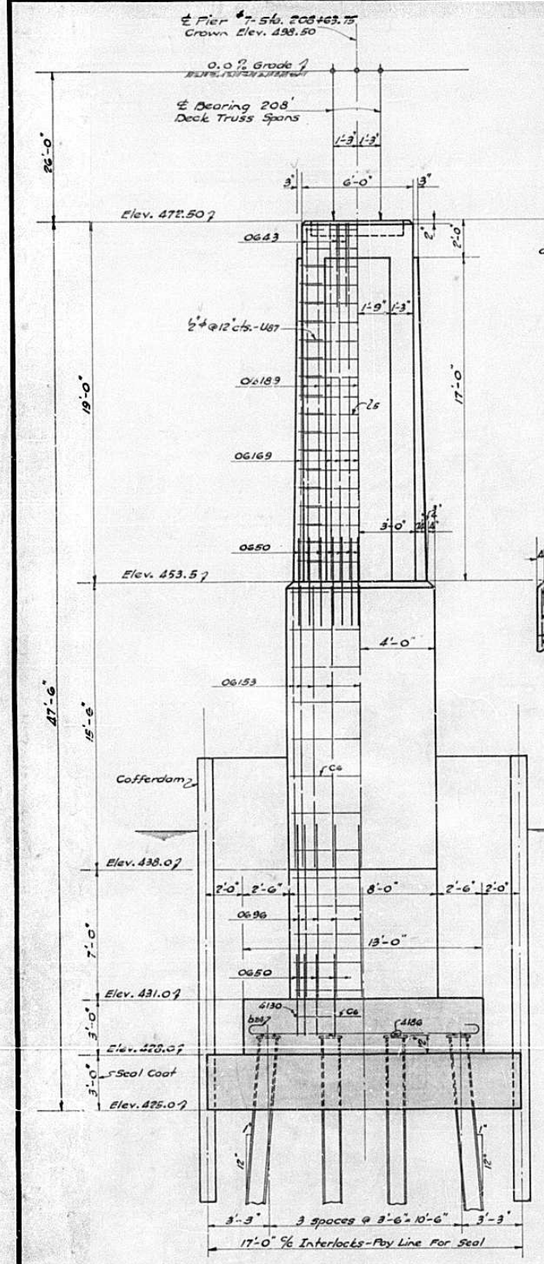
EXAMINED 12-15- 1939
H.F. Bundy
BRIDGE ENGINEER
PASSED W.B. Harrison
ENGINEER OF DESIGN
APPROVED Earl Lackman
CHIEF HIGHWAY ENGINEER

PIER NO. 6
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172. SECTION 13-B
PEORIA - TAZEWELL COUNTIES

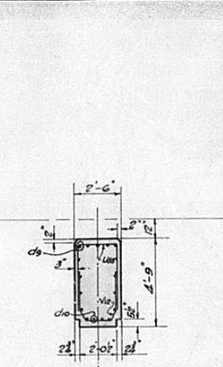
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

COUNTY-ROUTE-SECTION NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	11
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT 609 A	

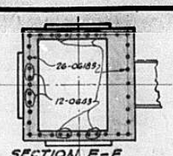
SHEET NO. 10
30 SHEETS

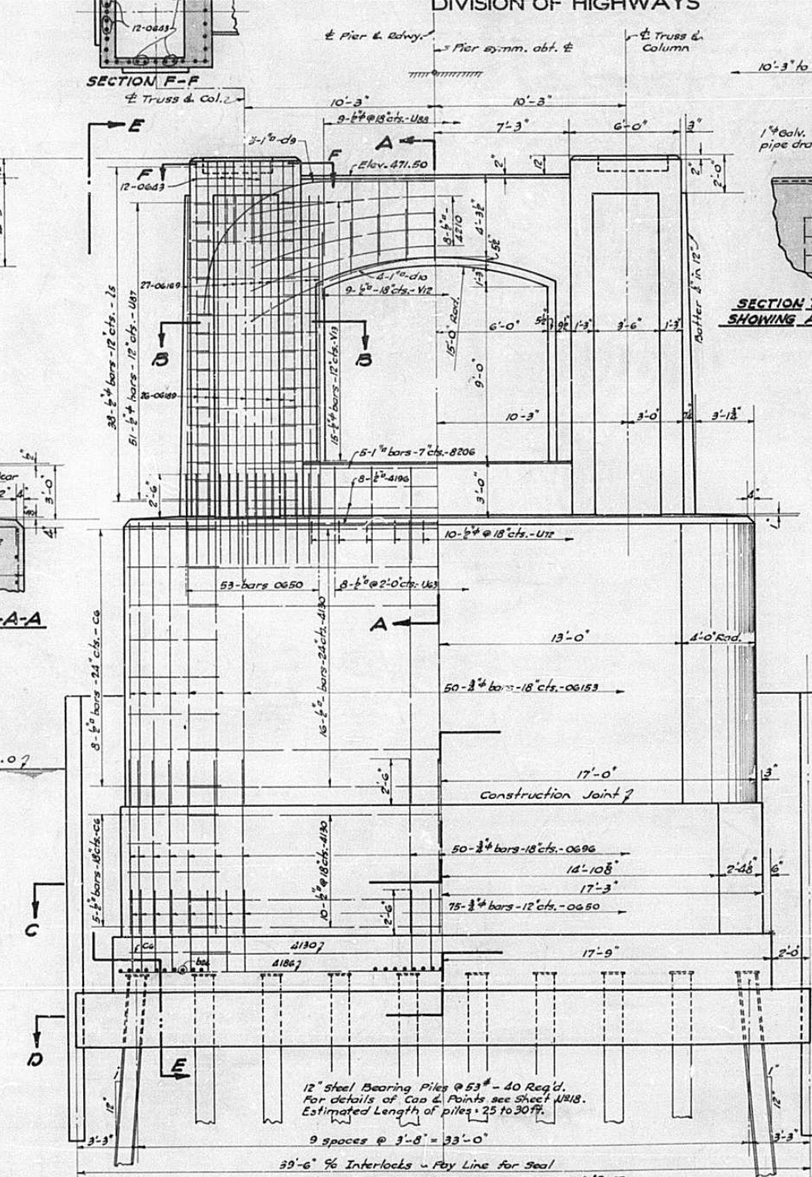


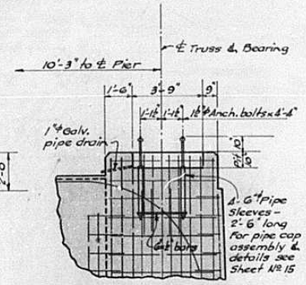
SECTIONAL ELEVATION E-E



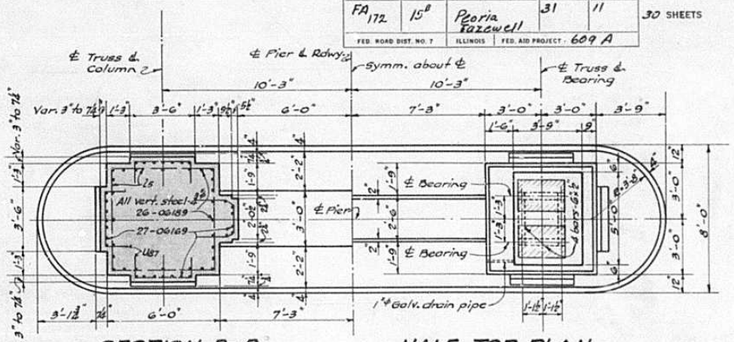
SECTION-A-A



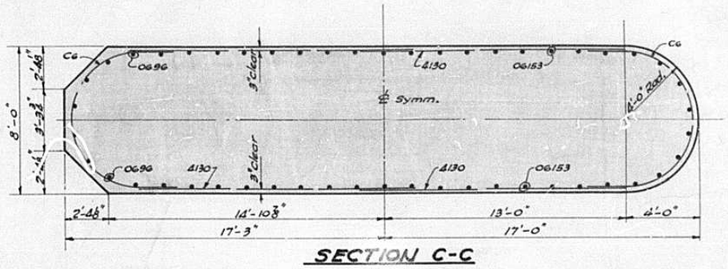




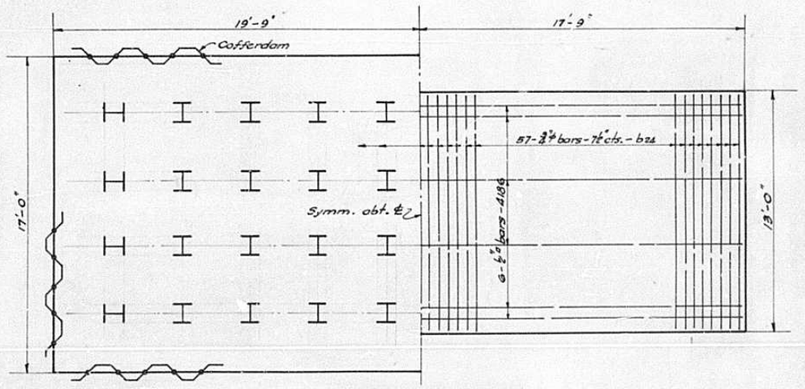
SECTION THRU BEARING ℄ PIT SHOWING ANCHOR BOLT DETAILS



SECTION B-B HALF TOP PLAN



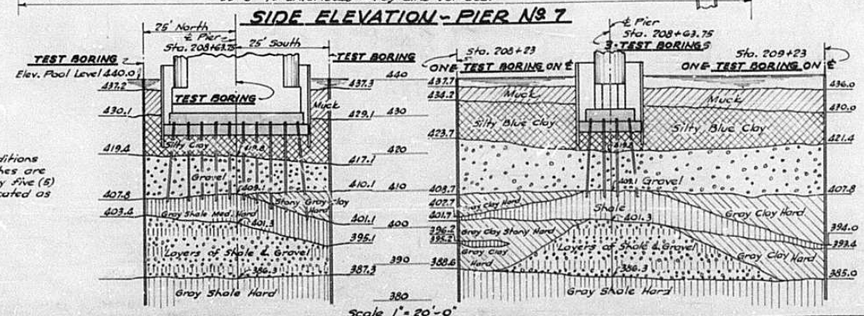
SECTION C-C



SECTION D-D

BILL OF MATERIAL PIER No. 7

BENT BARS				STRAIGHT BARS					
Bar	No.	Size	Length	Bar	No.	Size	Length	Items	
b24	57	¾"	14'-9"	4186	12	½"	18'-6"	Reinforcement Bars	Lbs. 11,540
c6	28	⅝"	15'-9"	4196	8	"	19'-6"	Class "A" Concrete	Cu. Yds. 337.3
d9	10	1"	18'-6"	4210	8	"	21'-0"	Seal Coat Concrete	Cu. Yds. 78.6
d10	4	1"	21'-0"	4130	56	"	13'-0"	Structural Steel	Lbs. 940
l5	76	½"	12'-0"	0643	24	¾"	4'-3"	Furnishing Steel Piles	Lbs. 59360
U63	8	⅝"	13'-0"	0650	181	"	5'-0"	Pile Caps & Points	Lbs. 3,440
U72	10	½"	10'-0"	0696	50	"	9'-6"	Driving Steel Piles	Lin. Ft. 1,100
U87	102	"	5'-6"	06153	50	"	15'-3"	Driving Steel Test Piles	Each 2
U88	9	"	9'-6"	06169	52	"	18'-9"	Cofferdam	Each 1
V12	9	⅝"	7'-0"	06189	52	"	18'-9"	Class "B" Excavation	Cu. Yds. 310
V13	30	⅝"	5'-6"	8206	5	1"	20'-6"		



STANDARD	COMPUTED	P. Widmer	
	CHECKED	A.L. Thomas	
	DRAWN	P.M. F.E. Michuda	
	CHECKED	A.L.J.	
SPECIAL	ASSEMBLED		
	CHECKED		

EXAMINED 12-15-1939 — BRIDGE ENGINEER
PASSED — ENGINEER OF DESIGN
APPROVED — CHIEF HIGHWAY ENGINEER

Note:- Subsoil conditions shown in sketches are as indicated by five (5) test borings located as shown.

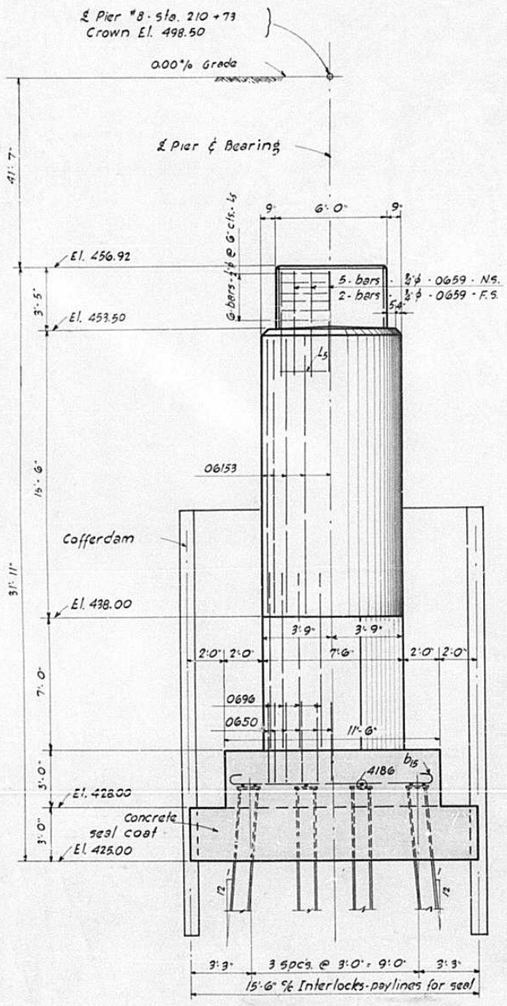
Note:- For details of bent bars see sheet No. 30.

PIER NO. 7
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172. SECTION 15-B
PEORIA - TAZEWELL COUNTIES

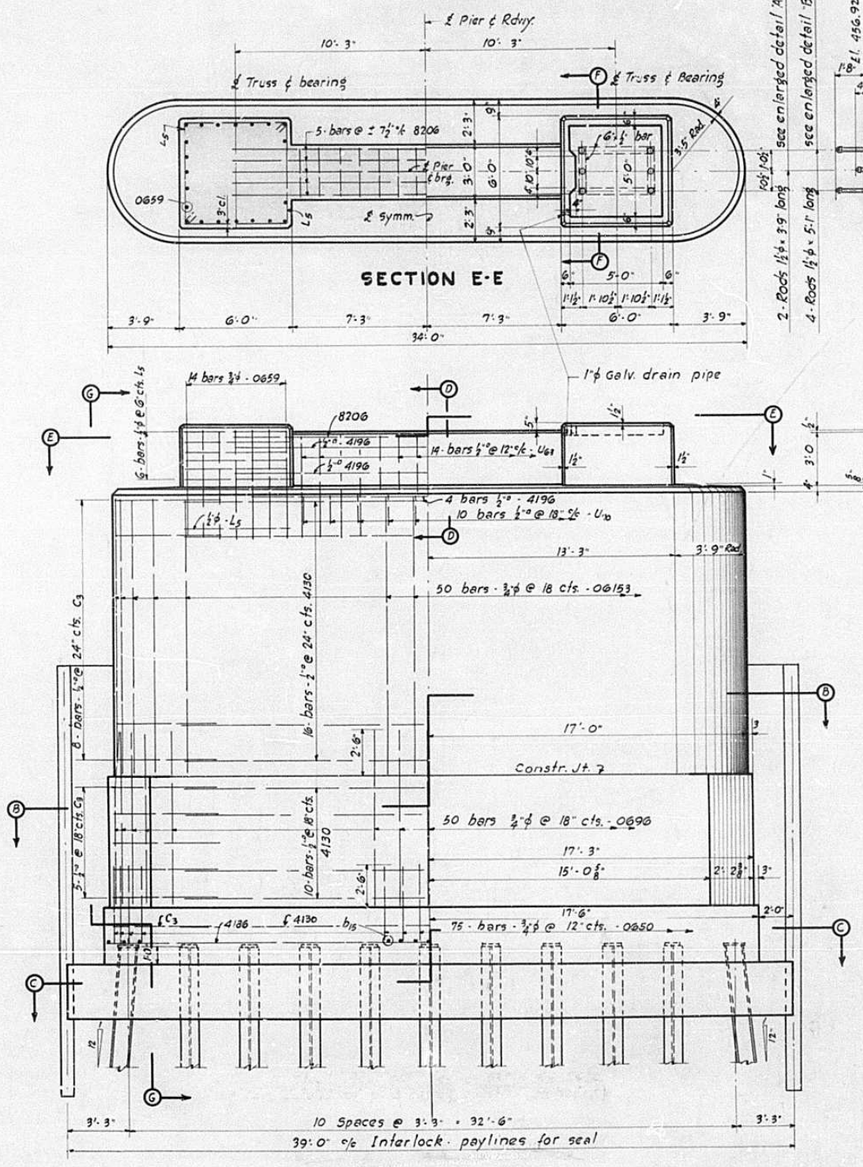
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: 609 A		

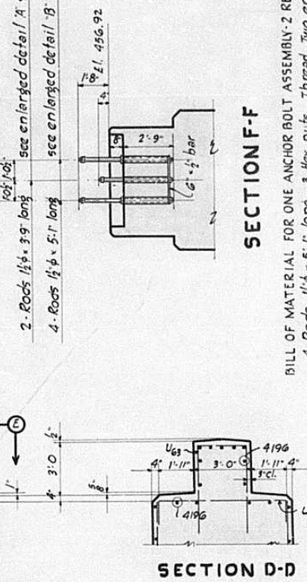
SHEET NO. 11
30 SHEETS



SECTIONAL ELEVATION G-G

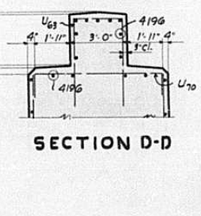


SIDE ELEVATION
PIER # 8

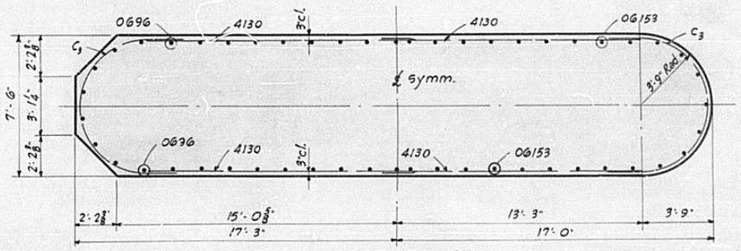


BILL OF MATERIAL FOR ONE ANCHOR BOLT ASSEMBLY - 2 REQ'D.

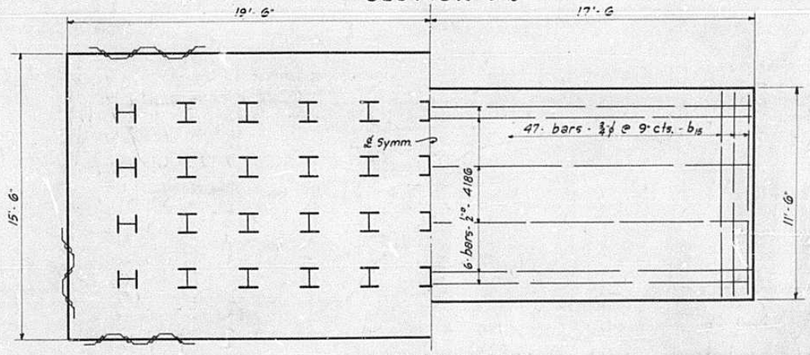
4 Rods	1½ℓ × 5'-1" long · 3 Hex nuts Thread Two ends 6"
2 Rods	1½ℓ × 3'-9" long · 2 Hex nuts 4½"
6 pipe sleeves	6 ½ℓ Thread one end ½"
2 Bars	6" × ½" × 4'-2"
2 Bars	6" × ½" × 2'-8"
2 Pipe caps	see detail 'A' sheet #9
4 Pipe caps	see detail 'B' sheet #9



SECTION D-D

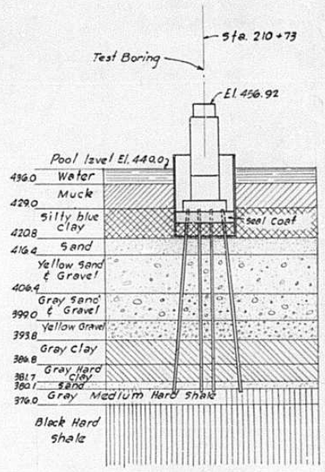


SECTION B-B



SECTION C-C

All piles 12"-53# Steel bearing piles.
44-required. Estimated length = 53 ft.
For detail of pile cap & point see sht No. 18.



BORING DATA

Subsoil conditions shown above are as indicated by a test boring taken at the intersection of the ℄ of the pier and the ℄ of the roadway. Steel brg. piles are 12" @ 53 # driven to refusal in shale.

STANDARD	COMPUTED	H.S. Hamilton	
	CHECKED	P. Nielsen	
	DRAWN	V.A.H. C.L. HAZLETT	
	CHECKED	P.M.	
SPECIAL	ASSEMBLED		
	CHECKED		

EXAMINED 12-15-1939
H. F. Bureau, BRIDGE ENGINEER
PASSED [signature], ENGINEER OF DESIGN
APPROVED [signature], CHIEF HIGHWAY ENGINEER

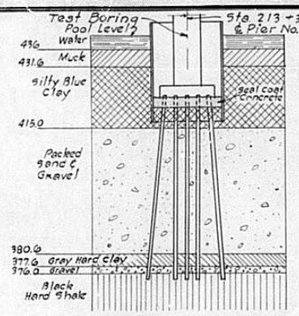
Notes:-
For reinforcement bar list & bill of material see sheet #8
For Details of Bent Bars see sheet #30

PIER No. 8
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172, SECTION 15-B
PEORIA-TAZEWELL COUNTIES

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

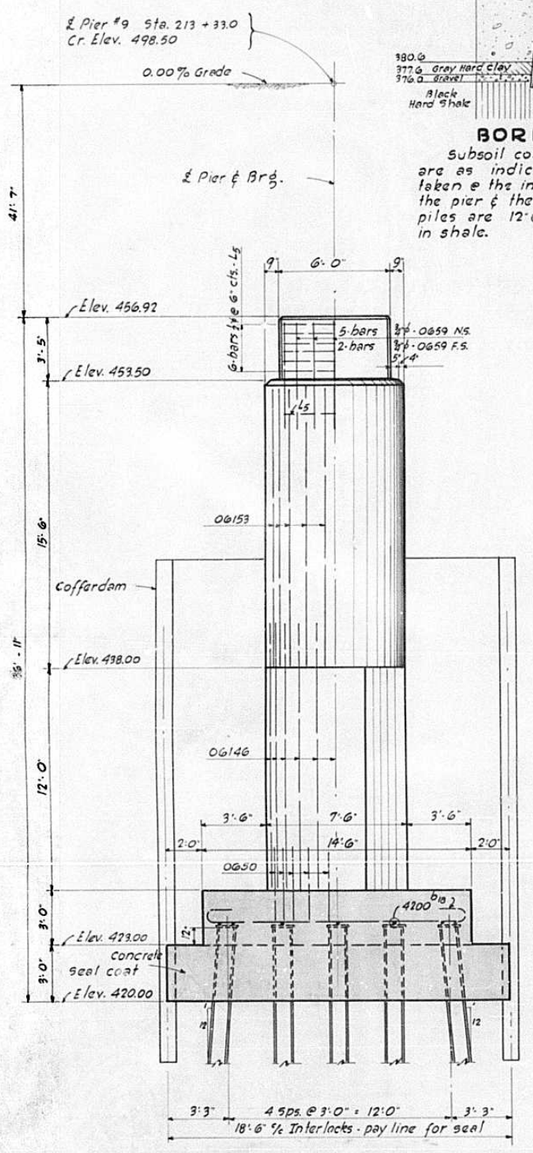
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA/172	15B	Peoria Tazewell	31	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609-A		

SHEET NO. 12
30 SHEETS

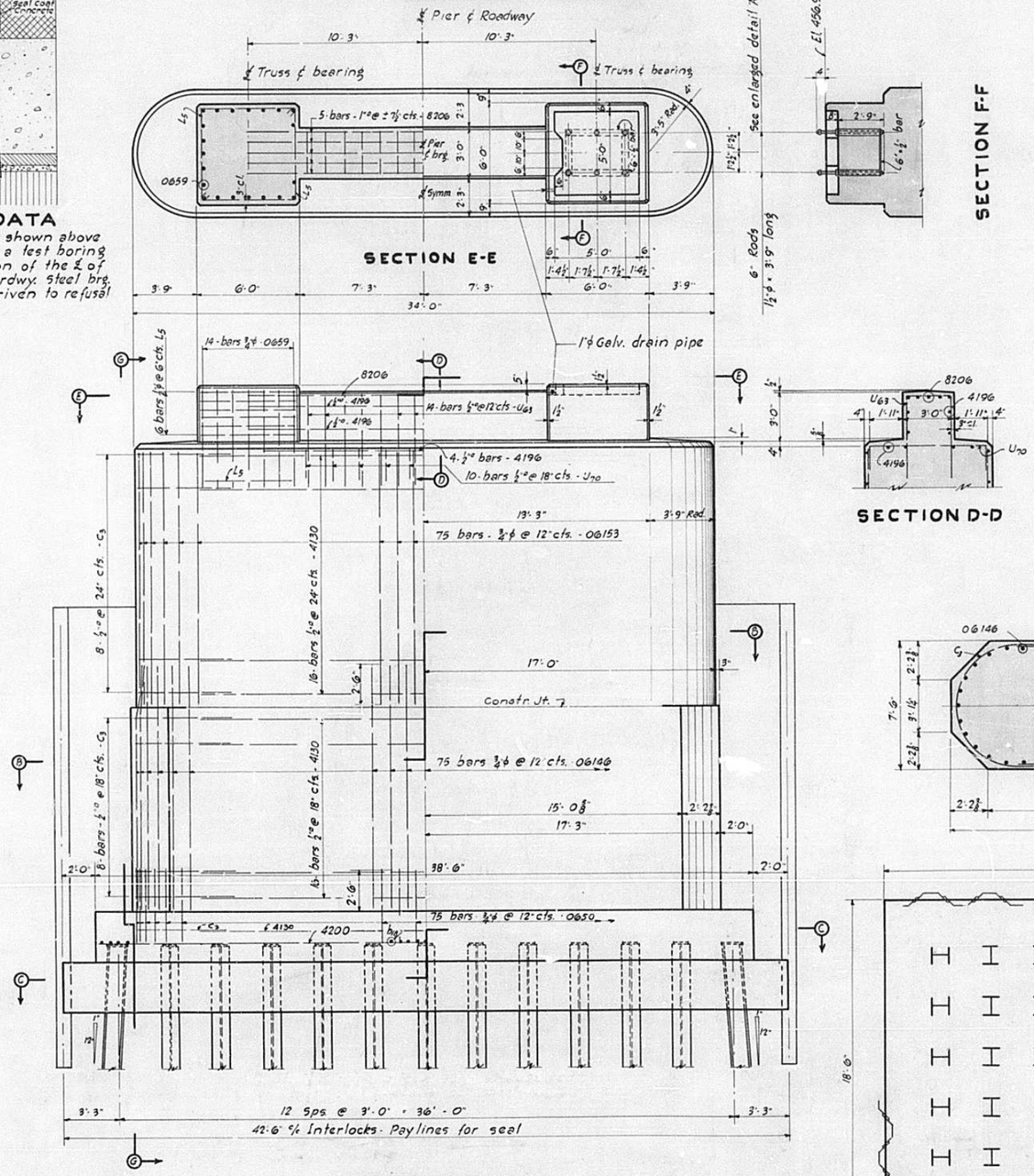


BORING DATA

Subsoil conditions shown above are as indicated by a test boring taken e the intersection of the ℄ of the pier ℄ the ℄ of the rdwy. Steel brg. piles are 12"@ 53# driven to refusal in shale.



SECTIONAL ELEVATION G-G

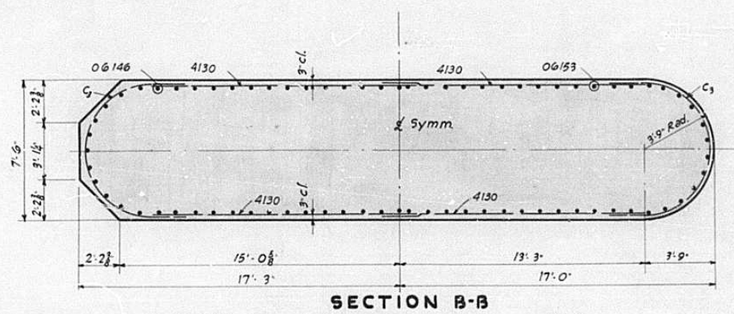


SIDE ELEVATION
PIER #9

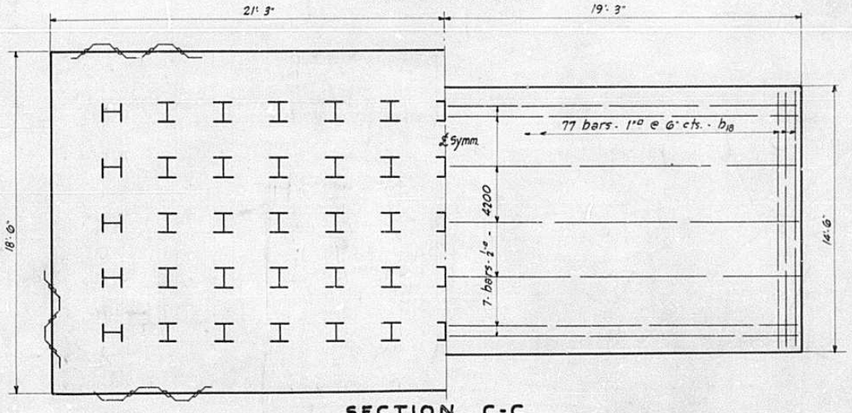
SECTION F-F

BILL OF MATERIAL FOR ONE ANCHOR BOLT ASSEMBLY - 2 REQ'D.
6 - Rods 1½"ø x 3'-9" long - 2 Hex. nuts each. Thread both ends 4½"
6 - 6"ø pipe sleeves - Thread one end 1½"
2 - bars 6" x ½" x 3'-10"
2 - bars 6" x ½" x 3'-0"
6 - Pipe caps see detail 'A' sheet #9

SECTION D-D



SECTION B-B



SECTION C-C

All piles are 12"-53# Steel bearing piles.
65 - required. Estimated length = 52 ft.
For detail of pile cap & point see sh't No. 18.

NOTE:-
For details of bent bars see sheet No. 30
For Reinforcement Bar list & Bill of Mat'l. see sheet No. 8

STANDARD	COMPUTED	W.S. Shannon
	CHECKED	P. Nielsen
	DRAWN	W.S.H. C.L. HAZLETT
	CHECKED	D.M.
SPECIAL	ASSEMBLED	
	CHECKED	

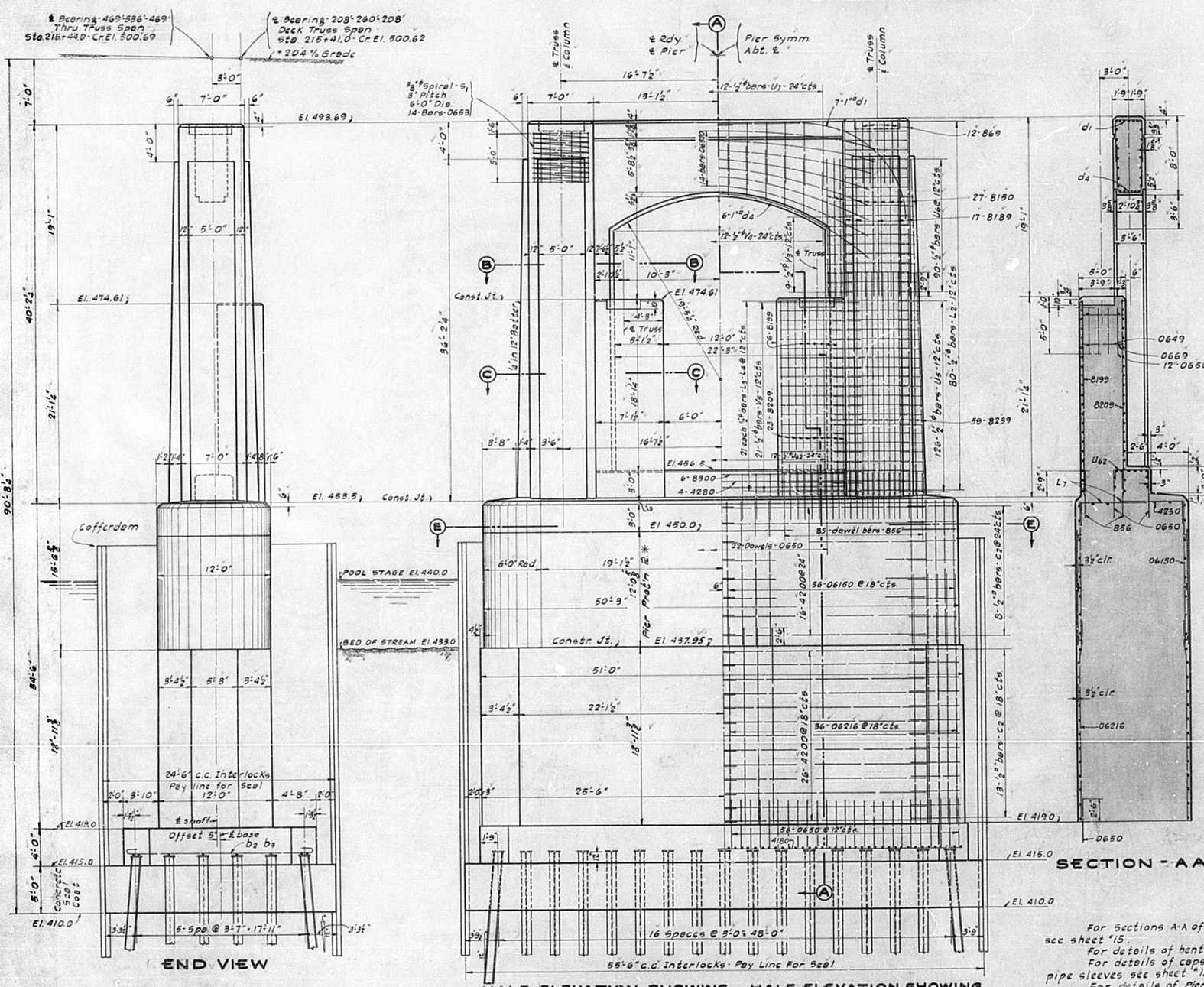
EXAMINED 12-15-1939
H.T. Bruce BRIDGE ENGINEER
PASSED [illegible] ENGINEER OF DESIGN
APPROVED [illegible] CHIEF HIGHWAY ENGINEER

PIER NO. 9
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172. SECTION 15-B
PEORIA - TAZEWELL COUNTIES

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

ROAD DIST. NO.	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FED. ROAD DIST. NO. 7	FA 172	15B	Peoria, Tazewell	31	14
	ILLINOIS		FED. AID PROJECT - 669-A		

SHEET NO. 13
30 SHEETS



END VIEW

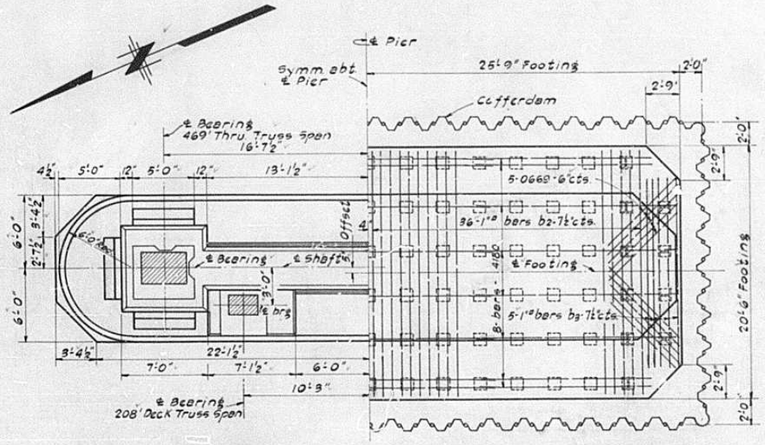
HALF ELEVATION SHOWING DIMENSIONS

HALF ELEVATION SHOWING REINFORCEMENT

ELEVATION - LOOKING EAST
SCALE 1" = 6 FT.

SECTION - AA

For Sections A-A of top beam, B-B etc. see sheet "15.
For details of bent bars see sheet "30.
For details of caps for anchor bolt pipe sleeves see sheet "15 & 18.
For details of Pier Protection Plates see sheet "29.
For details of Pile Caps and Points see sheet "18.



HALF TOP PLAN

HALF PLAN OF FOOTING SHOWING PILES & REINF.

ALL PILES ARE 12" 53# STEEL BEARING PILES - 98 REQD
Estimated Length - 38 ft.

BILL OF MATERIAL - PIER 10

BENT BARS				STRAIGHT BARS			
BAR	NO.	SIZE	LENGTH	BAR	NO.	SIZE	LENGTH
b2	72	1"ø	22'-6"	4180	24	½"ø	18'-0"
b3	10	1"ø	17'-0"	0663	168	¾"ø	5'-0"
c2	42	½"ø	22'-0"	06216	72	¾"ø	21'-6"
d1	14	1"ø	27'-9"	06150	72	¾"ø	15'-0"
d2	6	1"ø	33'-0"	4200	84	½"ø	20'-0"
L2	160	½"ø	14'-3"	0663	28	¾"ø	5'-3"
L3	42	½"ø	12'-0"	856	170	1"ø	5'-6"
L4	42	½"ø	12'-6"	4280	4	½"ø	28'-0"
U5	252	½"ø	6'-9"	8300	6	1"ø	30'-0"
U6	180	½"ø	5'-9"	8209	46	1"ø	20'-9"
U7	12	½"ø	16'-6"	8239	118	1"ø	23'-9"
U62	12	½"ø	5'-6"	8189	34	1"ø	18'-9"
V3	18	½"ø	8'-0"	8150	54	1"ø	15'-0"
V4	12	½"ø	13'-6"	869	24	1"ø	6'-9"
V5	42	½"ø	9'-6"	8199	12	1"ø	19'-9"
S1	2	⅜"ø	440'-0" ±	06320	14	¾"ø	32'-0"
L7	22	½"ø	7'-0"	0649	8	¾"ø	4'-9"
				0669	28	¾"ø	6'-9"
				4230	8	½"ø	23'-0"

Reinforcement Bars	Lbs.	45,250
Class X Concrete	Cu. Yds.	1184.0
Seal Coat Concrete	Cu. Yds.	251.9
* Structural Steel	Lbs.	1400
Furnishing Steel Piles	Lbs.	198,430
Pile Points & Caps	Lbs.	8,430
Driving Steel Piles	Lin. Ft.	3,724
Driving Steel Test Piles	Each	2
Cofferdam	Each	1
Class B Excavation	Cu. Yds.	1180

* Pier Protection Lbs. included in Bill of Material on sheet No. 29.

STANDARD	COMPUTED	P.R.J.
	CHECKED	A.L. Thomas
	DRAWN	P.R.J. G.P.
	CHECKED	A.L. Thos.
SPECIAL	ASSEMBLED	
	CHECKED	

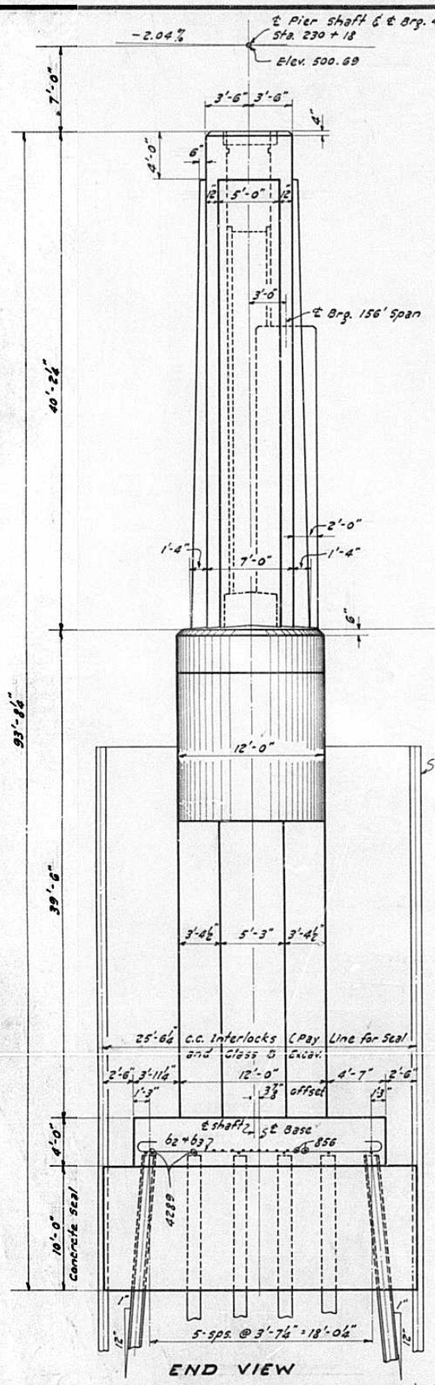
EXAMINED 12-15-1939
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

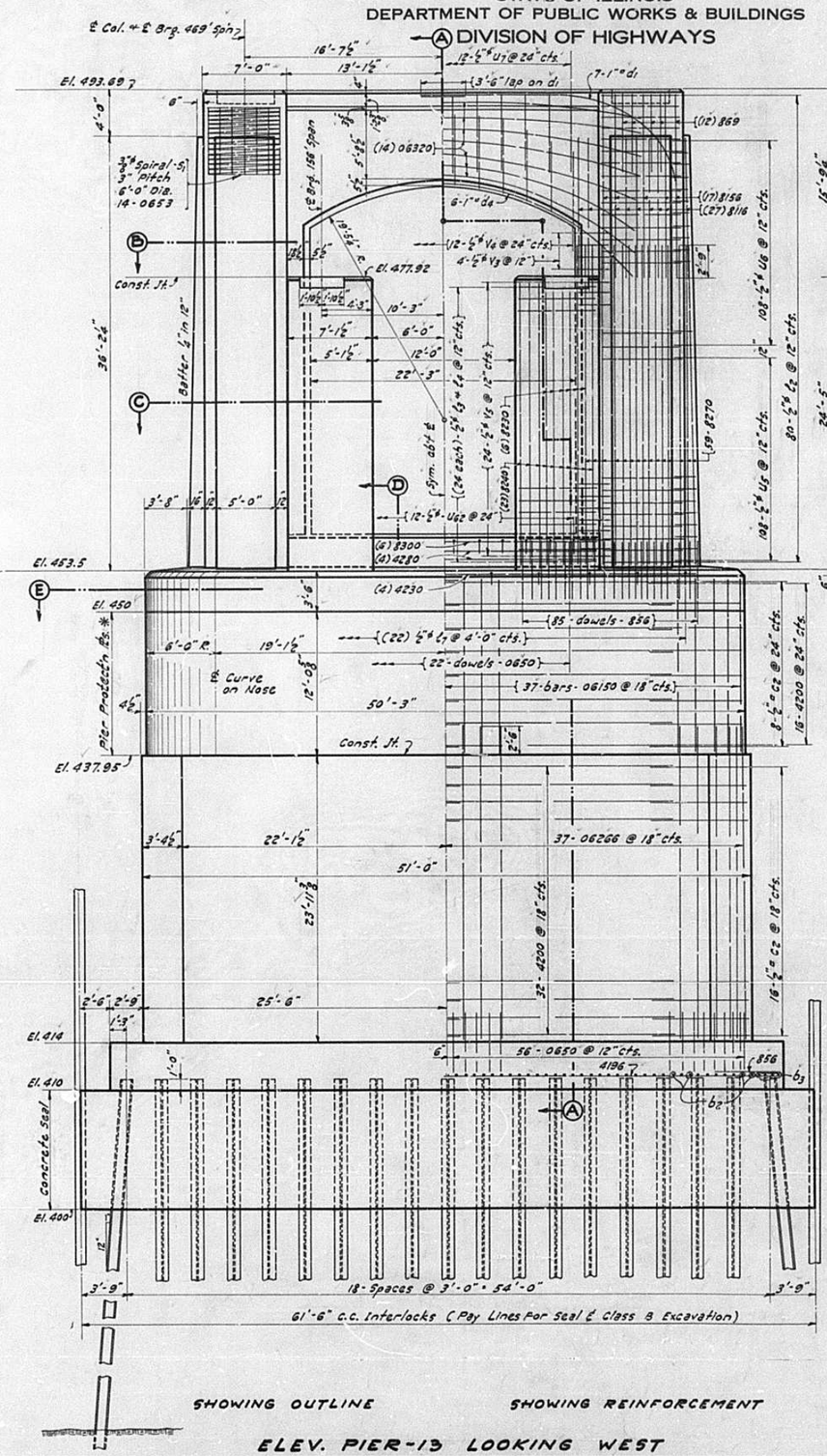
PIER NO. 10
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172, SECTION 15-B
PEORIA - TAZEWELL COUNTIES

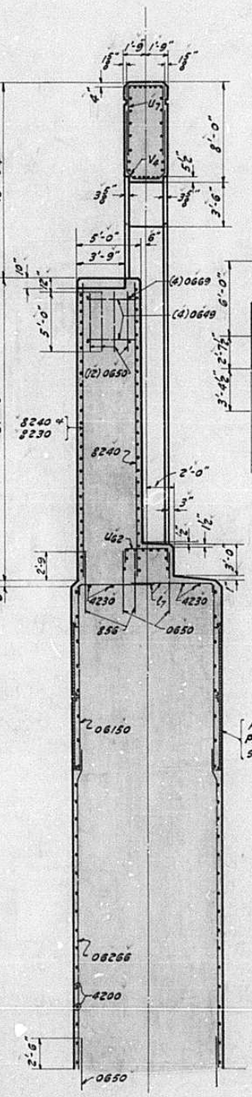
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

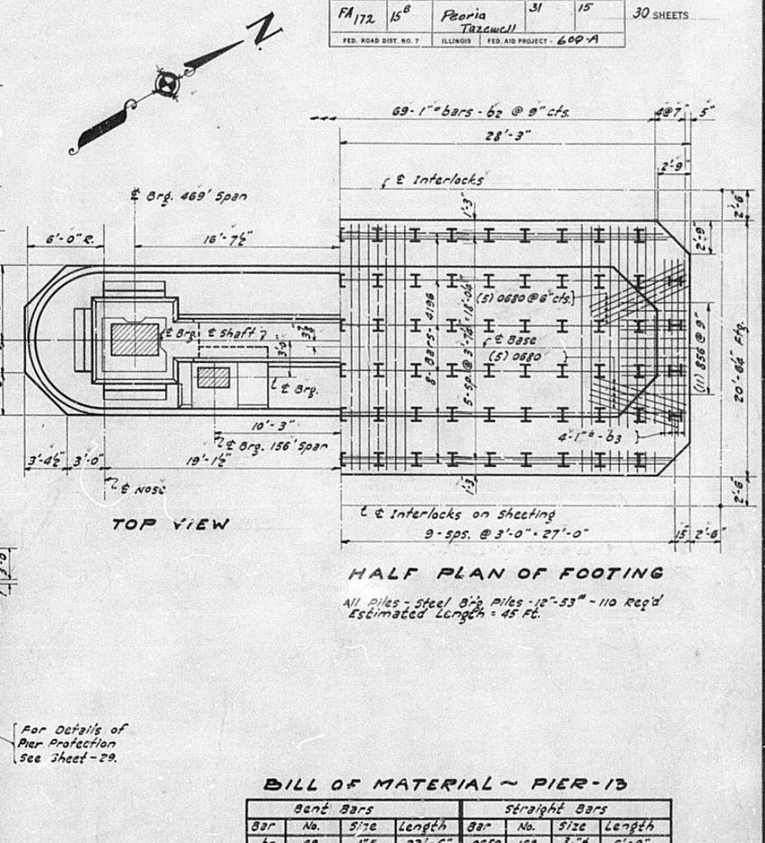
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609-A		

SHEET NO. 14
30 SHEETS









All Piles - Steel Bib Piles - 12"-53" - 110 Req'd
Estimated Length = 45 Ft.

BILL OF MATERIAL ~ PIER-13

Bent Bars				Straight Bars			
Bar	No.	Size	Length	Bar	No.	Size	Length
b2	69	1" ø	22'-6"	0650	158	¾" ø	5'-0"
b3	8	1" ø	17'-0"	06266	74	"	26'-6"
C2	48	½" ø	22'-0"	06150	74	¾" ø	15'-0"
				856	192	1" ø	5'-6"
d1	14	1" ø	27'-9"	4230	4	½" ø	28'-0"
d4	6	1" ø	33'-0"	8300	6	1" ø	30'-0"
				8240	46	"	24'-0"
L2	160	½" ø	14'-3"	8270	118	"	27'-0"
L3	48	"	12'-0"	8116	54	"	11'-6"
L4	48	"	12'-6"	8156	34	"	15'-6"
L7	22	½" ø	7'-0"	8230	12	1" ø	23'-0"
S1	2	⅜" ø	440'-0"	06320	14	¾" ø	32'-0"
				869	24	1" ø	6'-9"
U5	216	½" ø	6'-9"	0653	28	¾" ø	5'-3"
U2	216	"	5'-9"	4200	36	½" ø	20'-0"
U7	12	"	16'-6"	4196	24	½" ø	19'-8"
U62	12	½" ø	5'-6"				
				0680	20	¾" ø	8'-0"
V3	8	½" ø	8'-0"	4230	8	½" ø	23'-0"
V4	12	"	13'-6"	0649	8	¾" ø	4'-9"
V5	48	½" ø	9'-6"	0669	8	¾" ø	6'-9"

Reinforcement Bars	Lbs.	47,340
Class "A" Concrete	Cu. Yds.	1314.0
Seal Coat Concrete	Cu. Yds.	576.9
* Structural Steel	Lbs.	1400
Furnishing Steel Piles	Lbs.	263,410
Pile Points & Caps	Lbs.	9460
Driving Steel Piles	Lin. Ft.	4950
Driving Steel Test Piles	Ea.	2
Cofferdam	Ea.	1
Class "B" Excavation	Cu. Yds.	1830

NOTE:
For top beam Sec. A-A; B-B etc. See Sheet - 15
Bar Details - Sheet - 30
Anchor Bolt Details - Sh. 15 & 18
Pier Protection Es. - Sh. - 29
Pile Caps & Points - Sh. - 18

Work this sheet with Sheet - *15.
* Pier Protect'n Es. included in Bill of Material - Sht. No. 29

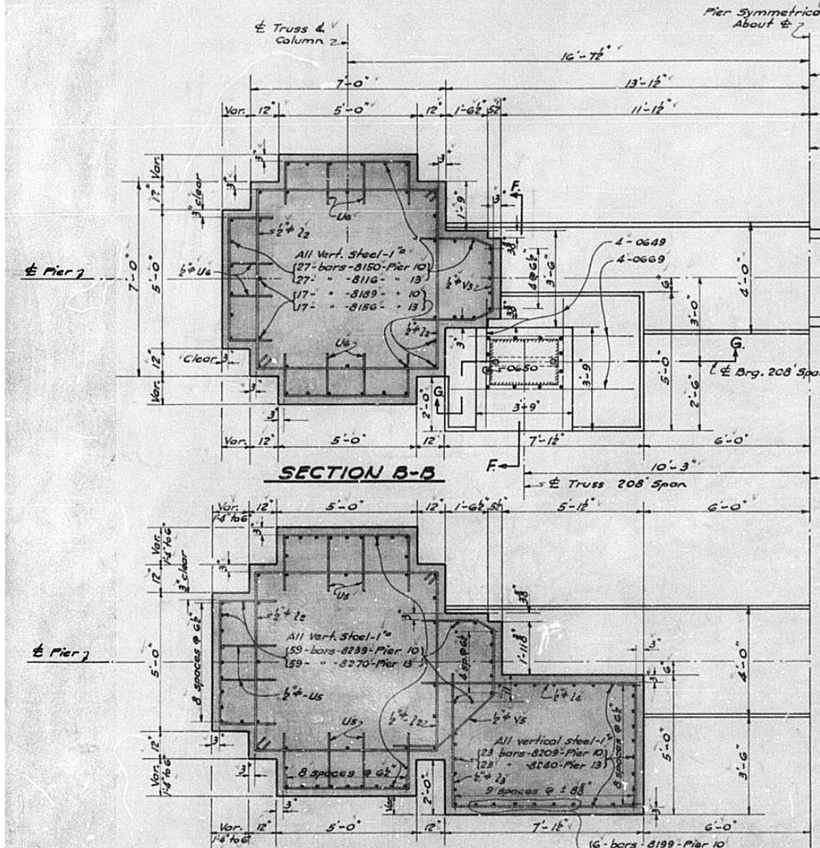
STANDARD	COMPUTED	R.B.M. Murphy	EXAMINED 12-15-1939
	CHECKED	A.L. Thomas	H. F. Burrows, BRIDGE ENGINEER
	DRAWN	R.B.M. J. Malecki	PASSED ENGINEER OF DESIGN
	CHECKED	A.L.S.	APPROVED CHIEF HIGHWAY ENGINEER
SPECIAL	ASSEMBLED		
	CHECKED		

PIER No. 13
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172, SECTION 15-B
PEORIA - TAZEWELL COUNTIES

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

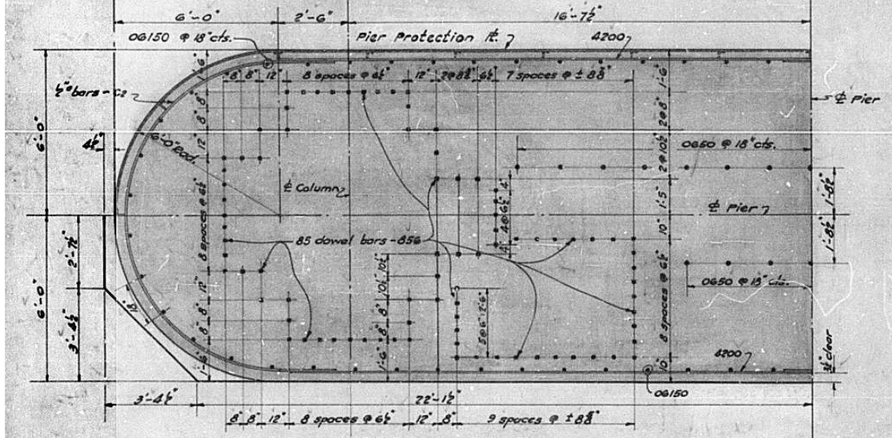
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172 15B	Peoria Tazewell	31	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609-A	

SHEET NO. 15
30 SHEETS

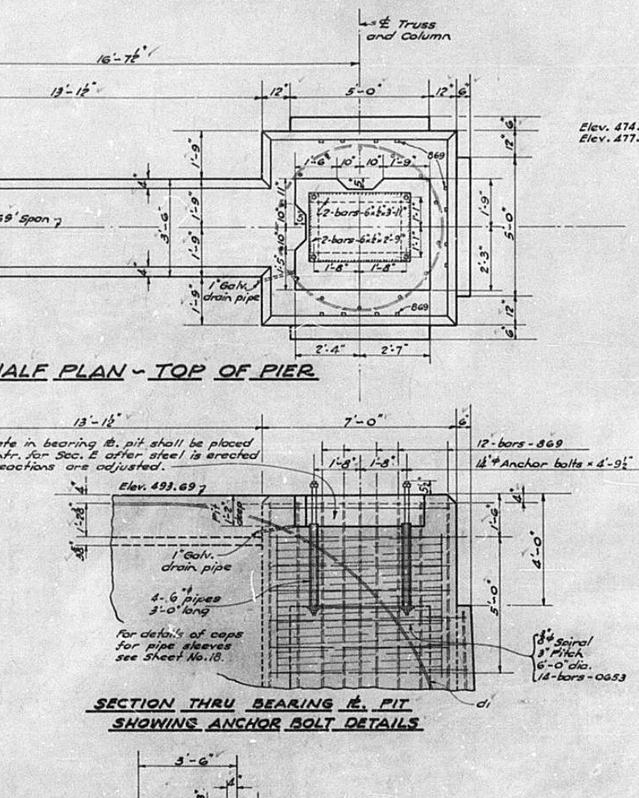


SECTION B-B

SECTION C-C

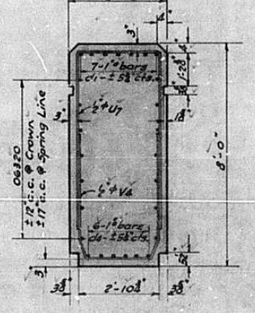


SECTION E-E

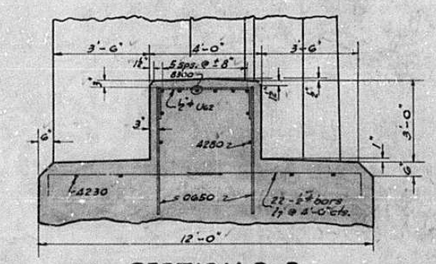


HALF PLAN - TOP OF PIER

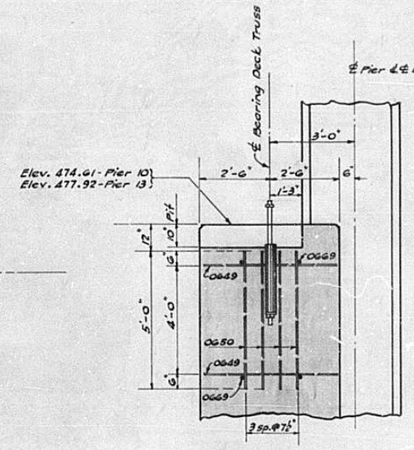
SECTION THRU BEARING ℄ PIT SHOWING ANCHOR BOLT DETAILS



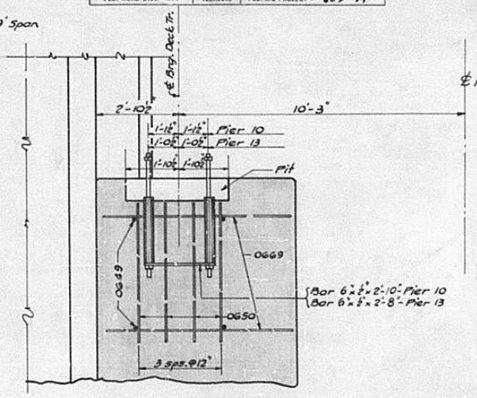
SECTION A-A



SECTION D-D



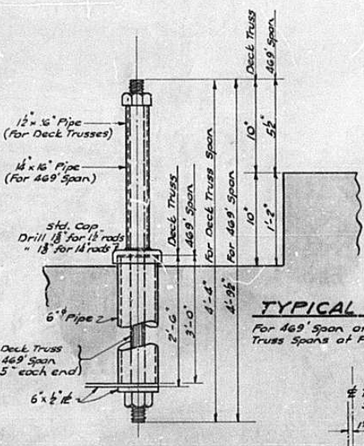
SECTION F-F
Showing Details of End Bearing of Deck Truss Span.



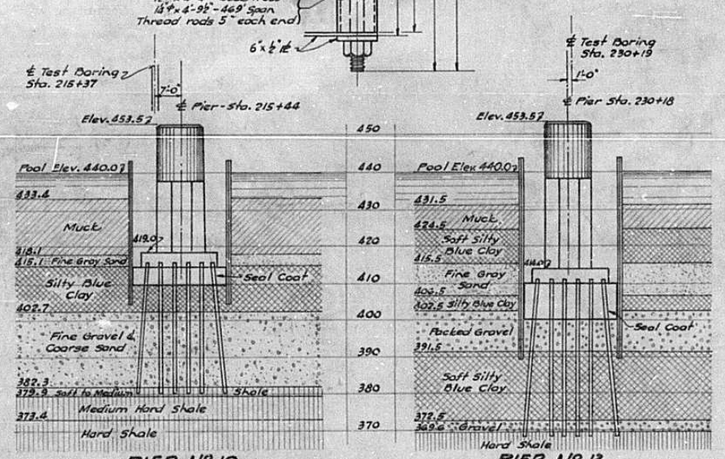
SECTION G-G

TOTAL ANCHOR BOLT MATERIAL REQUIRED AT PIERS 10 & 13

	Pier 10	Pier 13
14" Pipe Sleeves	8	8
12" " "	4	4
6" " "	12	12
1¼" Rods	4	4
1¼" "	8	8
1¼" Hex. Nuts	8	8
1¼" " "	16	16
6"x½"x2'-9" Bars	4	4
6"x½"x3'-11" "	4	4
6"x½"x2'-10" "	2	—
6"x½"x2'-8" "	—	2
Std. Pipe Caps-6"ø	12	12



TYPICAL ANCHOR DETAIL
For 469' Span of Piers 10 & 13 & Deck Truss Spans of Piers 4-7-10-11 & 16.



PIER № 10 PIER № 13

BORING DATA

Note:
Work this sheet with sheets #13 & 14.

Note:-
Subsoil conditions shown are as indicated by test borings taken on the center line of Roadway at the station noted on the sketch.
Bearing Piles shown are 12" steel Bearing Piles-53#. Piles to be driven to refusal in underlying solid shale stratum.

STANDARD	COMPUTED	P.R. Pidgeon
	CHECKED	A. L. Thomas
	DRAWN	P.R. Pidgeon / P.R. Michling
	CHECKED	A.L.T.
SPECIAL	ASSEMBLED	
	CHECKED	

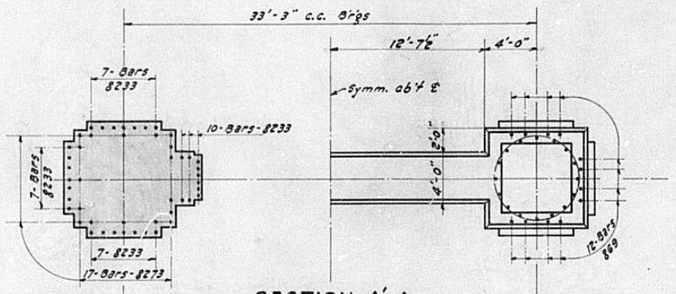
EXAMINED 12-15-1939
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

DETAILS, PIERS 10 & 13
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 SECTION 15-B
PEORIA TAZEWELL COUNTIES

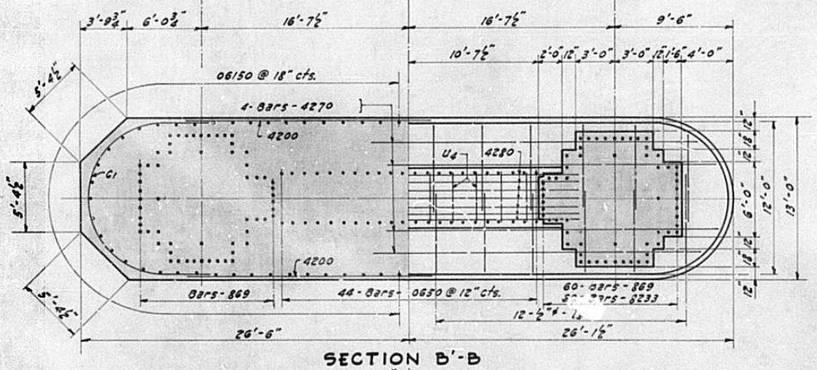
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609-A		

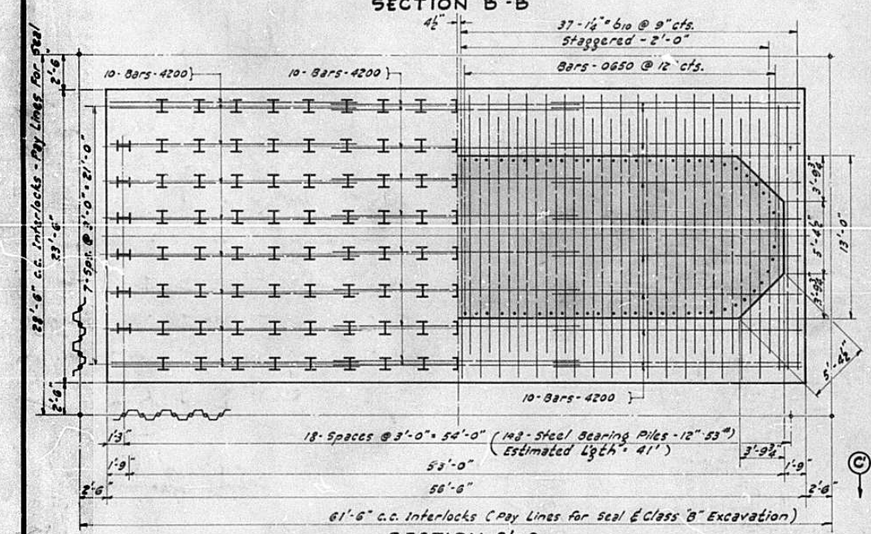
SHEET NO. 16
30 SHEETS



SECTION A'-A



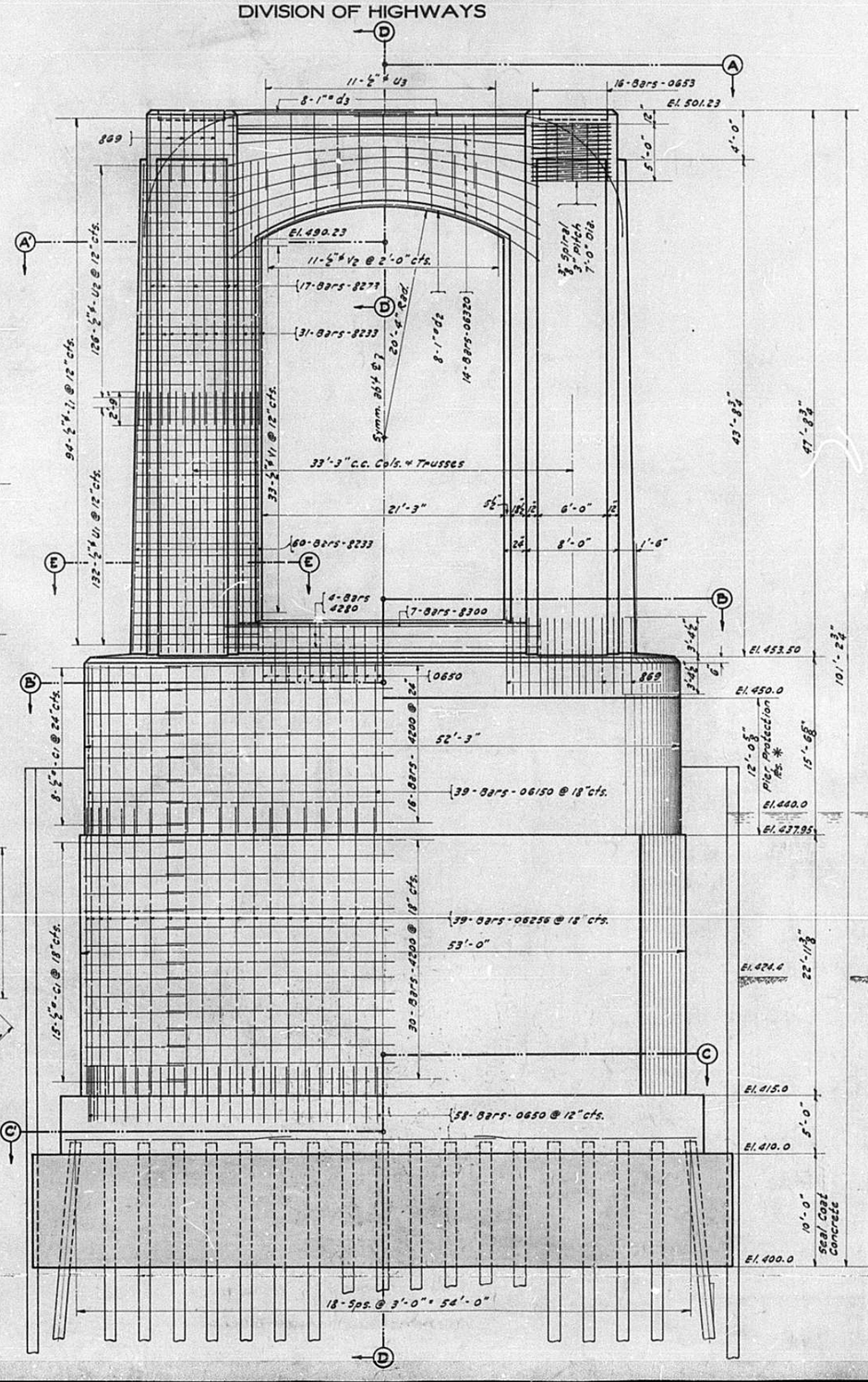
SECTION B'-B



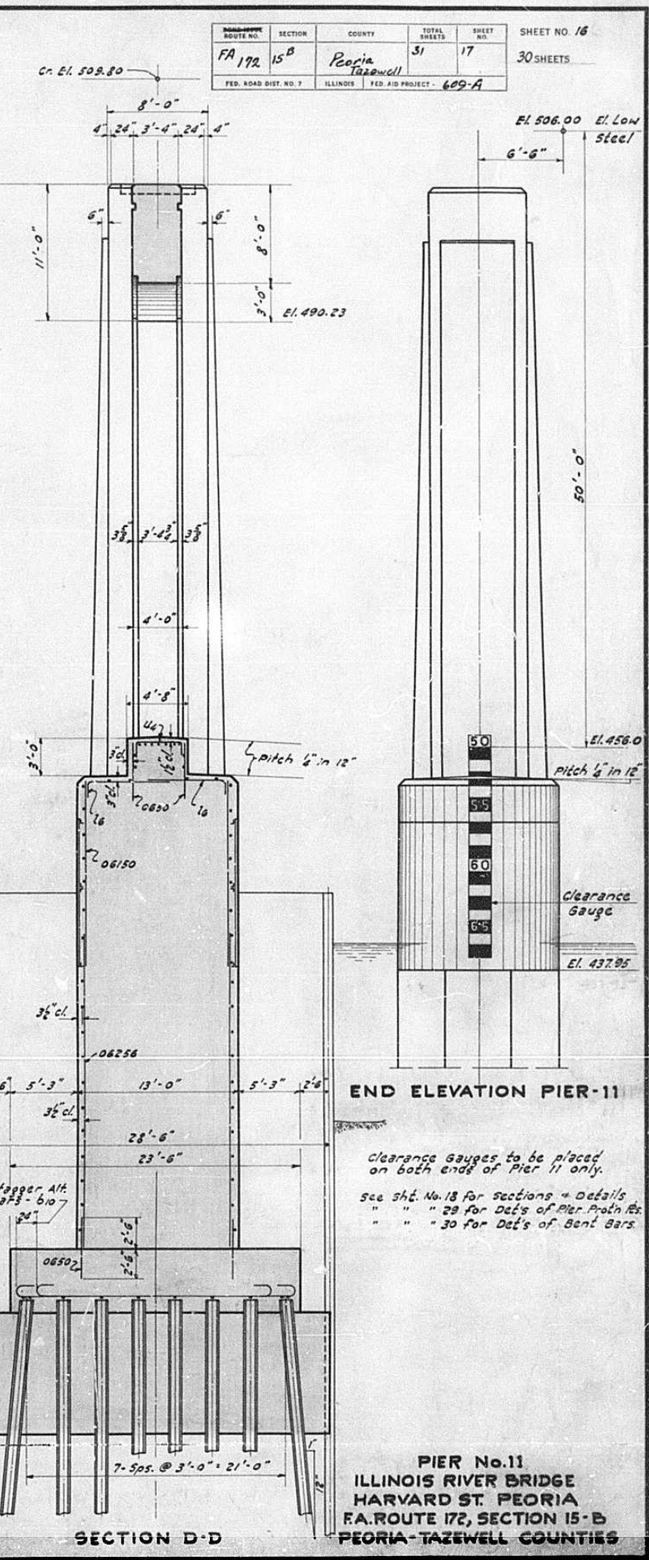
SECTION C'-C

STANDARD	COMPUTED	Frank Coy
	CHECKED	A. L. Thomas
	DRAWN	J. Mahesh
	CHECKED	A. L. T.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 12-15-1939
H. F. Bundy BRIDGE ENGINEER
PASSED [illegible] ENGINEER OF DESIGN
APPROVED [illegible] CHIEF HIGHWAY ENGINEER



SECTION D-D



END ELEVATION PIER-11

Clearance Gauges to be placed on both ends of Pier 11 only.

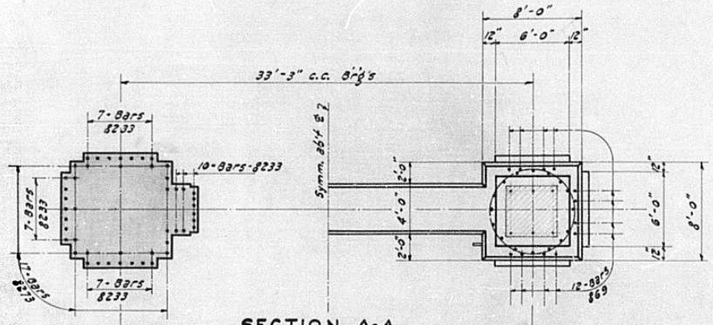
See Sht. No. 18 for sections & Details
" " " 29 for Det's of Pier Protection
" " " 30 for Det's of Bent Bars.

PIER No. 11
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172, SECTION 15-B
PEORIA-TAZEWELL COUNTIES

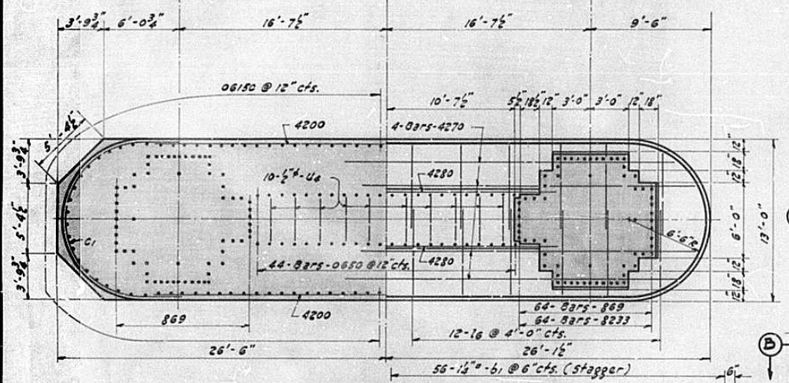
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609-A		

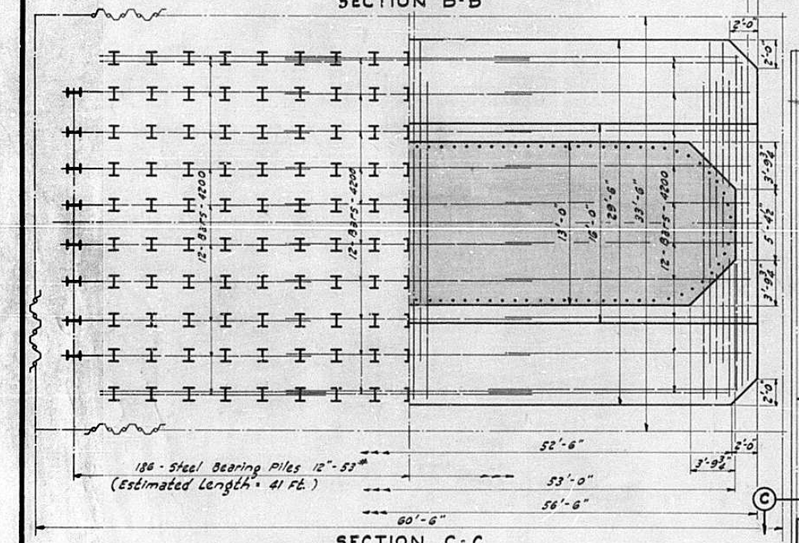
SHEET NO. 17
30 SHEETS



SECTION A-A



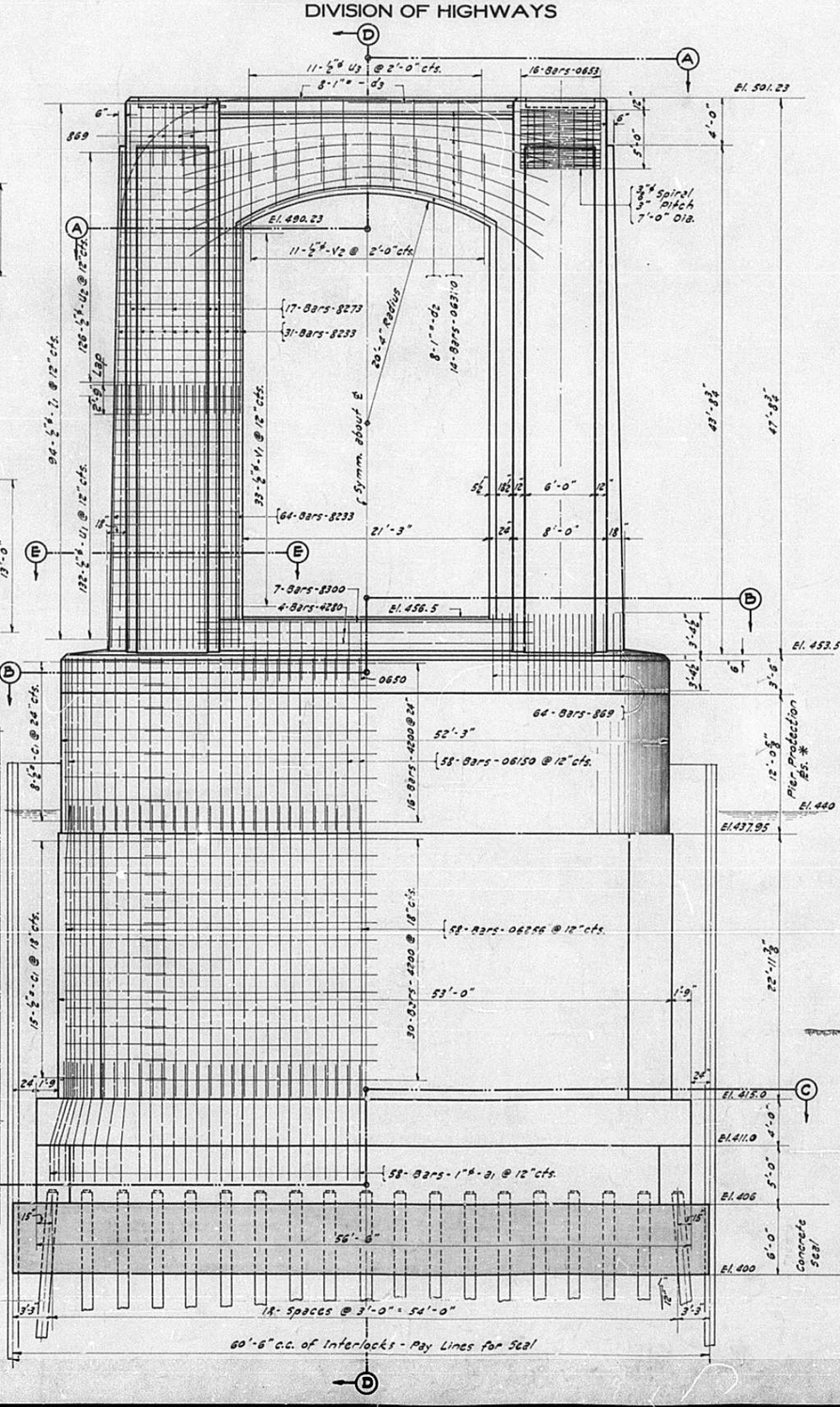
SECTION B-B

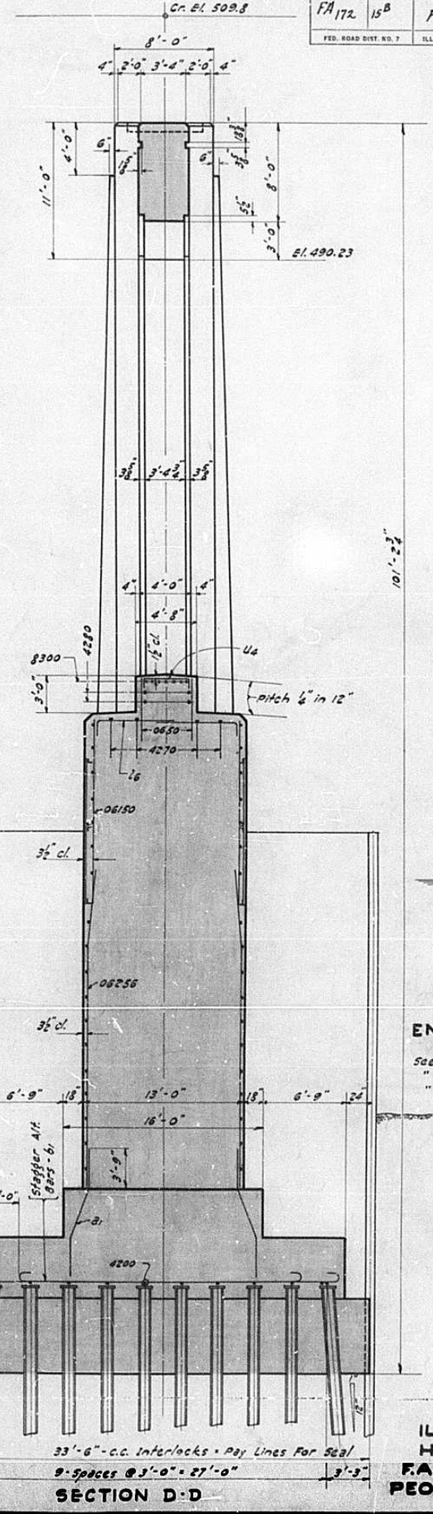


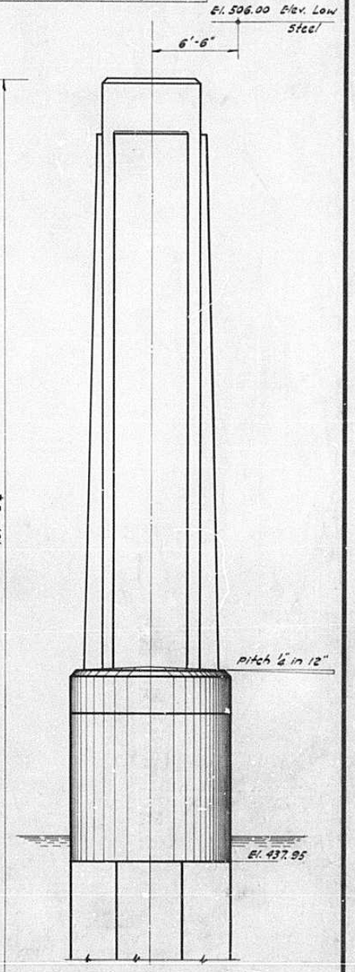
SECTION C-C

STANDARD	COMPUTED	Frank Long
	CHECKED	A.L. Romeo
	DRAWN	F.A.C. J. Malecki
	CHECKED	A.L.R.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 12-15-1939
H. F. Bundy BRIDGE ENGINEER
PASSED [illegible] ENGINEER OF DESIGN
APPROVED [illegible] CHIEF HIGHWAY ENGINEER







END ELEVATION - PIER 12

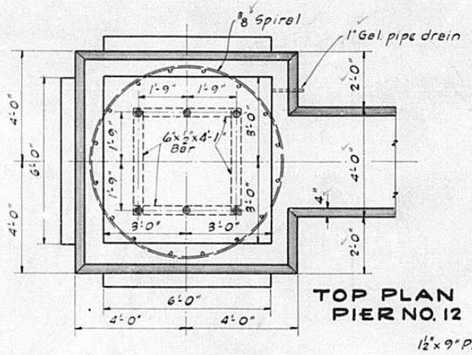
See Sht. No. 18 for Sections & Details
" " " 29 for Det's of Pier Protect'n Es.
" " " 30 for Det's of Bent Bars.

PIER No. 12
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172, SECTION 15-B
PEORIA - TAZEWELL COUNTIES

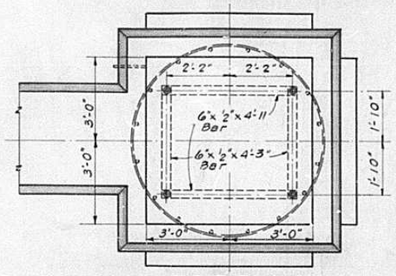
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15-B	Peoria Tazewell	31	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609-A		

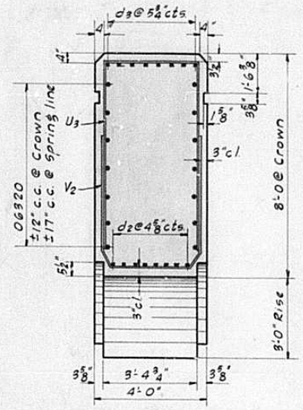
SHEET NO. 18
30 SHEETS



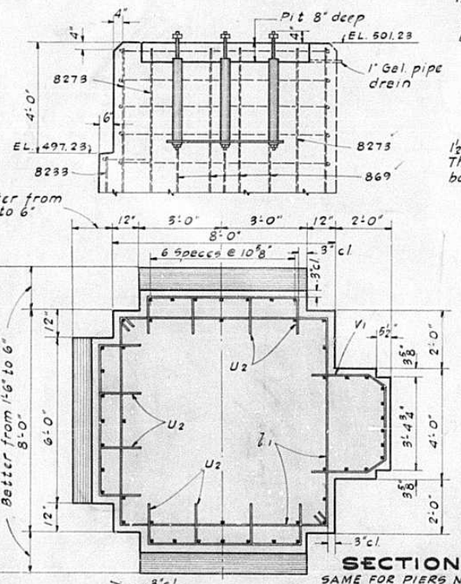
TOP PLAN
PIER NO. 12



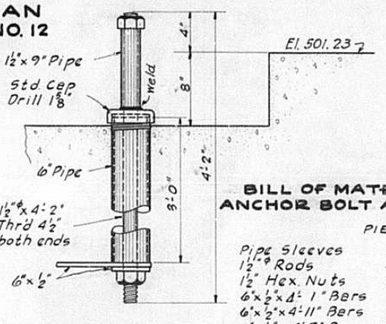
TOP PLAN
PIER NO. 11
SAME AS PIER 12 EXCEPT ANCHOR BOLT ASS'BLY

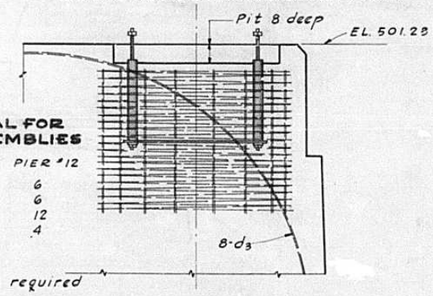


SECTION DD



SECTION-A
SAME FOR PIERS NO. 11, NO. 12



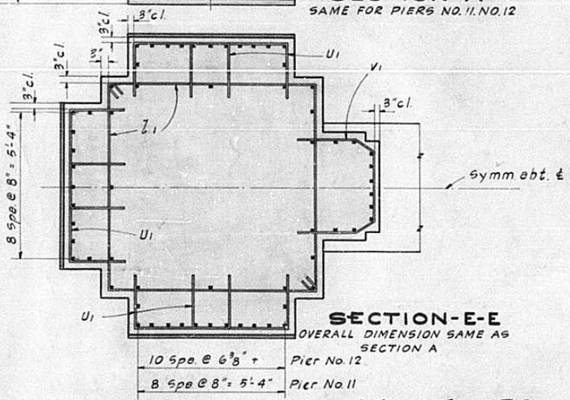


BILL OF MATERIAL FOR ANCHOR BOLT ASSEMBLIES

	PIER #11	PIER #12
Pipe Sleeves	4	6
1½" ϕ Rods	4	6
1½" Hex. Nuts	8	12
6"x½"x4'-1" Bars		4
6"x½"x4'-11" Bars	2	
6"x½"x4'-3" Bars	2	

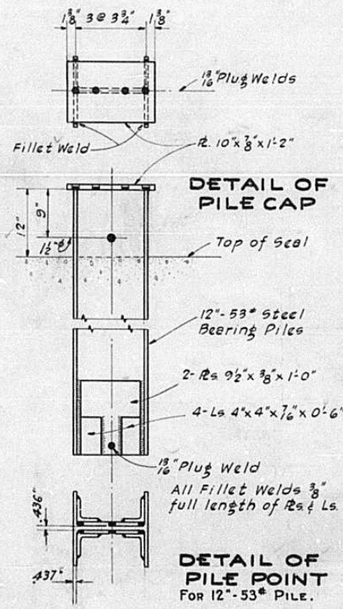
2- Complete Assemblies required for each Pier.

NOTE: Remove all water from pipe sleeves, grease threads and seal as shown. Paint exposed metal one coat red lead paint.



SECTION-E-E
OVERALL DIMENSION SAME AS SECTION A

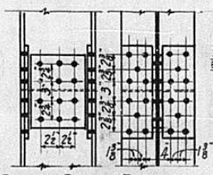
10 Spa @ 6⅝" = Pier No. 12
8 Spa @ 8" = 5'-4" Pier No. 11



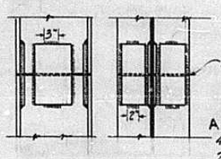
DETAIL OF PILE CAP

DETAIL OF PILE POINT
FOR 12"-53# PILE.

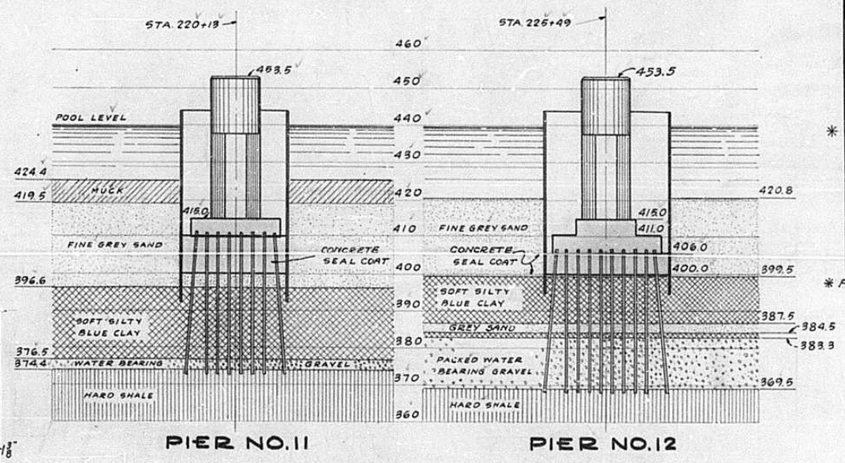
See sheet #27 for details of Points & Caps for 10"-42# piles.



DETAIL - BOLTED EMERGENCY SPLICE - 12" PILES
See Sht #27 - " " " " 10" "
4 Pls. 5¼"x½"x1'-3" } OHs. 15/16" for ⅞" bolts.
2 Pls. 7½"x⅜"x11" }



ALTERNATE DETAIL FOR ARC WELDED SPLICE
4-Pls-3½"x11"x⅜"x10" } ⅜" Continuous fillet welds.
2-Pls-6"x⅜"x10" }
Arc welded splice for 12"-53# or 10"-42# piles are alike.



PIER NO. 11 PIER NO. 12

Subsoil conditions shown above are as indicated by test borings taken at the intersection of the center line of each pier and the center line of Rdy. Bearing piles shown: 12"-53# steel, driven to refusal in shale.

REINFORCEMENT BARS

MARK	NUMBER NO. 11	NUMBER NO. 12	SIZE	LENGTH
4200	122	128	½"ϕ	20'-0"
4280	4	4	½"ϕ	28'-0"
4270	8	8	½"ϕ	27'-0"
0650	160	44	¾"ϕ	5'-0"
0658	32	32	¾"ϕ	5'-3"
06150	78	116	¾"ϕ	15'-0"
06256	78	116	¾"ϕ	25'-6"
06320	14	14	¾"ϕ	32'-0"
869	144	152	1"ϕ	6'-9"
8288	182	190	1"ϕ	28'-9"
8273	34	34	1"ϕ	27'-8"
8300	7	7	1"ϕ	30'-0"
B1		116	1"ϕ	12'-8"
b1		112	1½"ϕ	29'-9"
b10	74		1½"ϕ	24'-9"
C1	46	46	½"ϕ	25'-6"
d2	8	8	1"ϕ	33'-0"
d3	16	16	1"ϕ	28'-9"
Z1	188	188	½"ϕ	15'-9"
Z6	24	24	½"ϕ	7'-6"
U1	264	264	½"ϕ	7'-6"
U2	252	252	½"ϕ	6'-9"
U3	11	11	½"ϕ	17'-6"
U4	10	10	½"ϕ	6'-3"
V1	66	66	½"ϕ	8'-6"
V2	11	11	½"ϕ	13'-6"
S2	2	2	⅜"ϕ	510'-0"±

ITEM	UNIT	QUANTITY PIER No. 11	QUANTITY PIER No. 12
Reinforcement Bars	Lbs	49360	63380
Class X Concrete	Cu. Yds	1525.3	1720.8
Seal Coat Concrete	" "	649.0	450.4
* Structural Steel	Lbs	1084	1390
Furnishing Steel Piles (41)	"	322,665	405240
Pile Caps & Points	"	12730	16000
Driving Steel Piles	Lin. Ft.	6068	7626
" " Test Piles	Each	2	2
Coffordam	Each	one	one
Class B Excavation	Cu. Yds.	1585	1561

* Pier Protection Es. included in Bill of Material on sheet No. 29.

STANDARD	COMPUTED	Frank a Coy
	CHECKED	A. L. Thomas
	DRAWN	F.a.C. Y.P.
	CHECKED	A. L. T.
SPECIAL	ASSEMBLED	
	CHECKED	

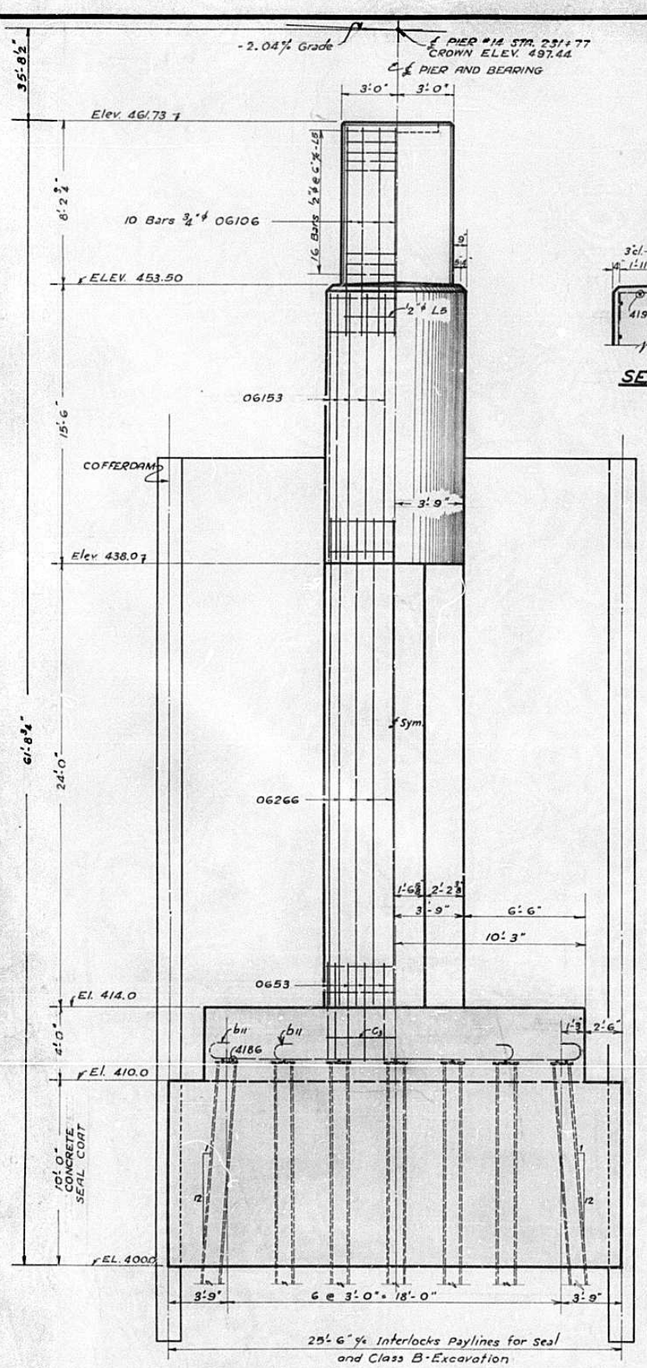
EXAMINED 12-15-1939
H. F. Bundy BRIDGE ENGINEER
PASSED Wm. Sherman ENGINEER OF DESIGN
APPROVED Ernest Lindgren CHIEF HIGHWAY ENGINEER

DETAILS, PIERS 11 & 12
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
FA. ROUTE 172, SECTION 15-B
PEORIA-TAZEWELL COUNTIES

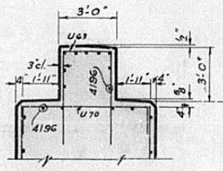
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

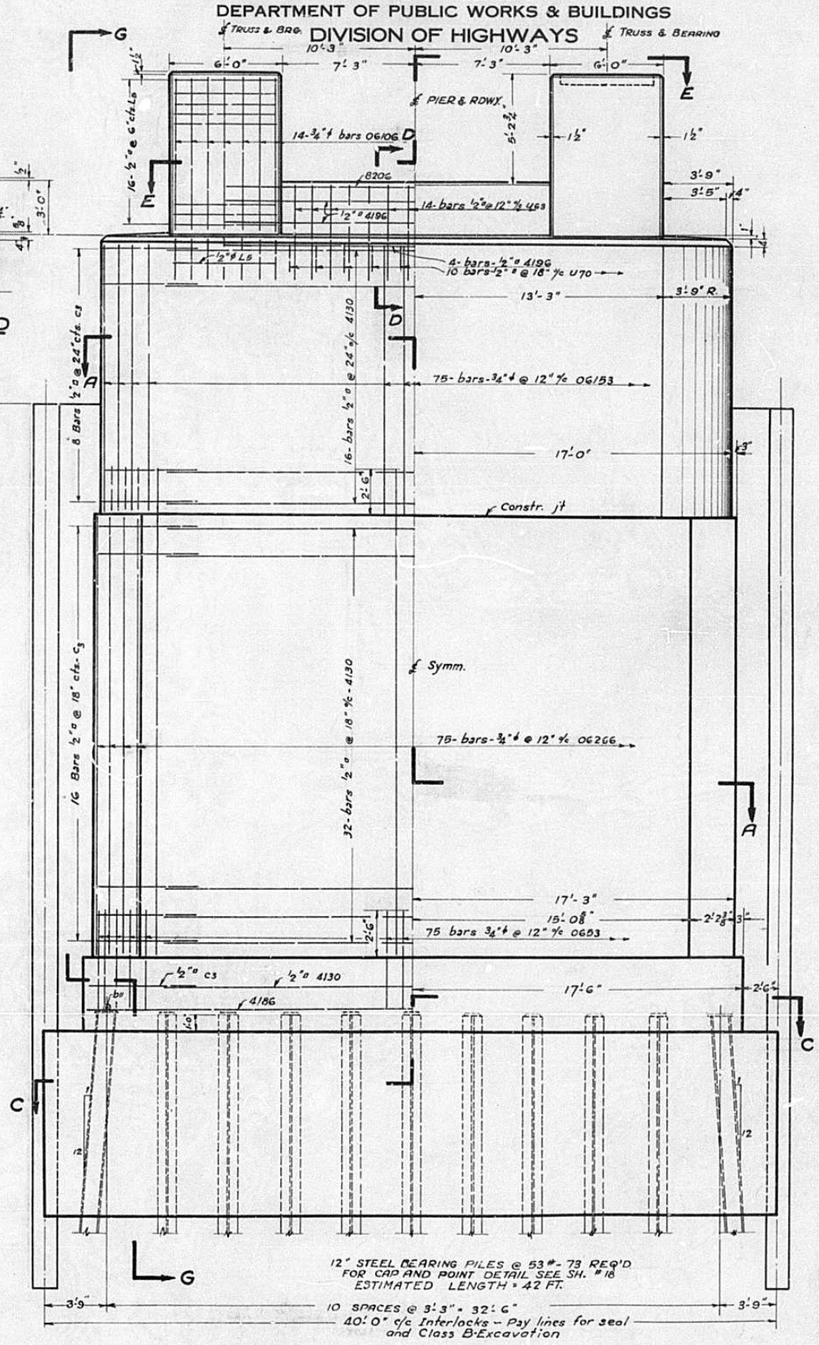
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 B	Peoria Tazewell	31	20
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609-A		

SHEET NO. 19
30 SHEETS



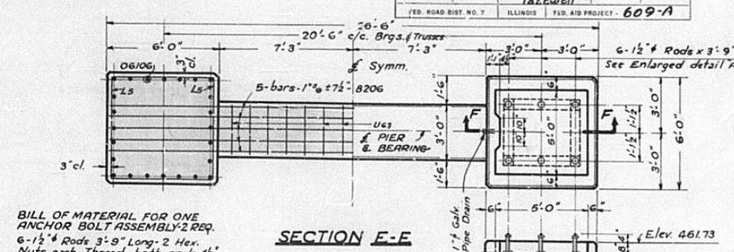
SECTION D-D



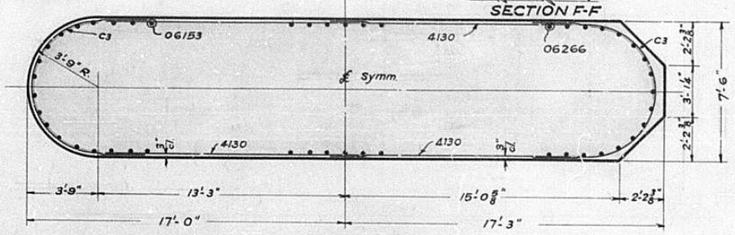


SECTIONAL ELEVATION G-G

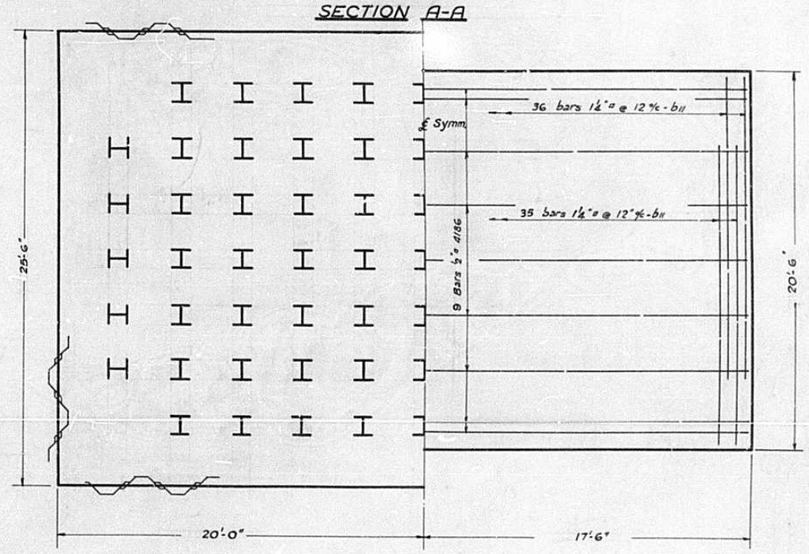
SIDE ELEVATION
PIER NO. 14



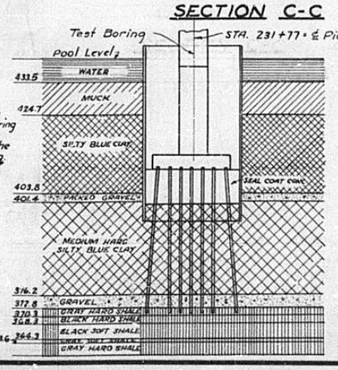
BILL OF MATERIAL FOR ONE ANCHOR BOLT ASSEMBLY-2 REQ.
6-1½"ϕ Rods 3'-9" Long- 2 Hex. Nuts each Thread both ends 4½"
6-6"ϕ Pipe Sleeves. Thread one end 1½"
2 bars 6"x½"x 3'-8"
2 bars 6"x½"x 2'-10"
6 Pipe Caps. See Detail "A" on Sheet # 9



SECTION A-A



SECTION C-C



Subsoil conditions as shown are as indicated by a test boring taken at the intersection of the center of the pier and the center of the rdwy. Steel brg. piles as shown are 12"ϕ 53# driven to refusal in shale.

For Detail of Bent Bars see sheet No.30.

For Reinforcement Bar List and Bill of Material see Sheet No. 8.

STANDARD	COMPUTED	M.B. Yeffet (gw)
	CHECKED	P. Middleton
	DRAWN	M.B. M. D. YEFFET
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

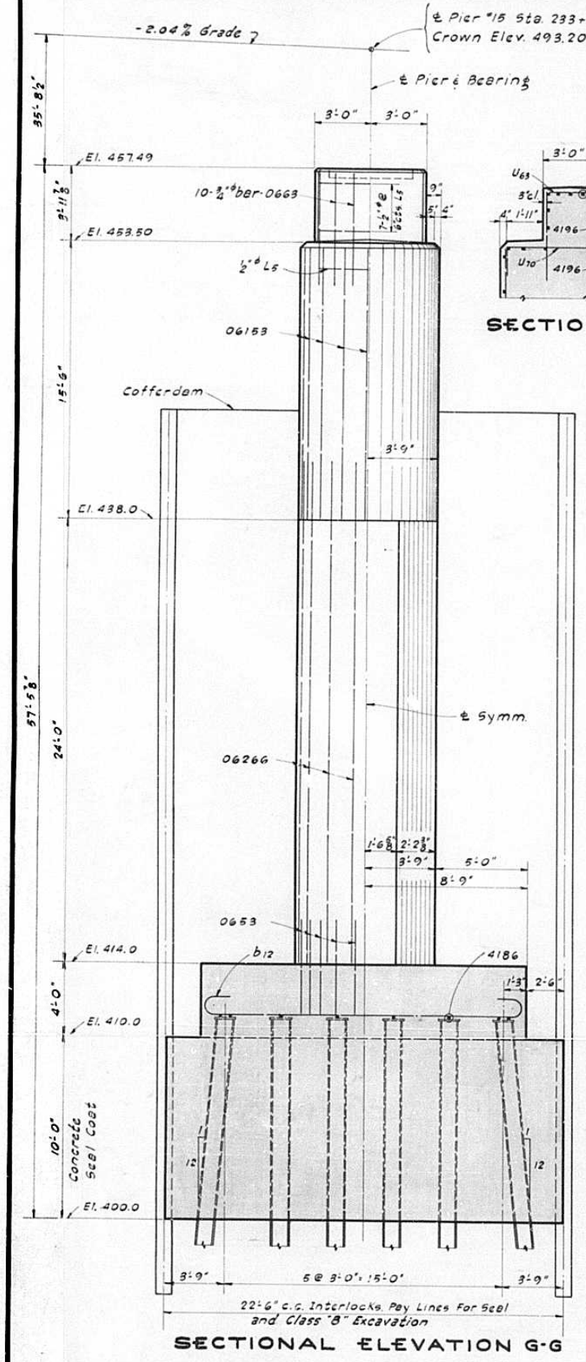
EXAMINED 2-15-1939
H. F. Bullock BRIDGE ENGINEER
PASSED Alex Sommer ENGINEER OF DESIGN
APPROVED Frank T. Sheets CHIEF HIGHWAY ENGINEER

PIER No. 14
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172, SECTION 15-B
PEORIA - TAZEWELL COUNTIES

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

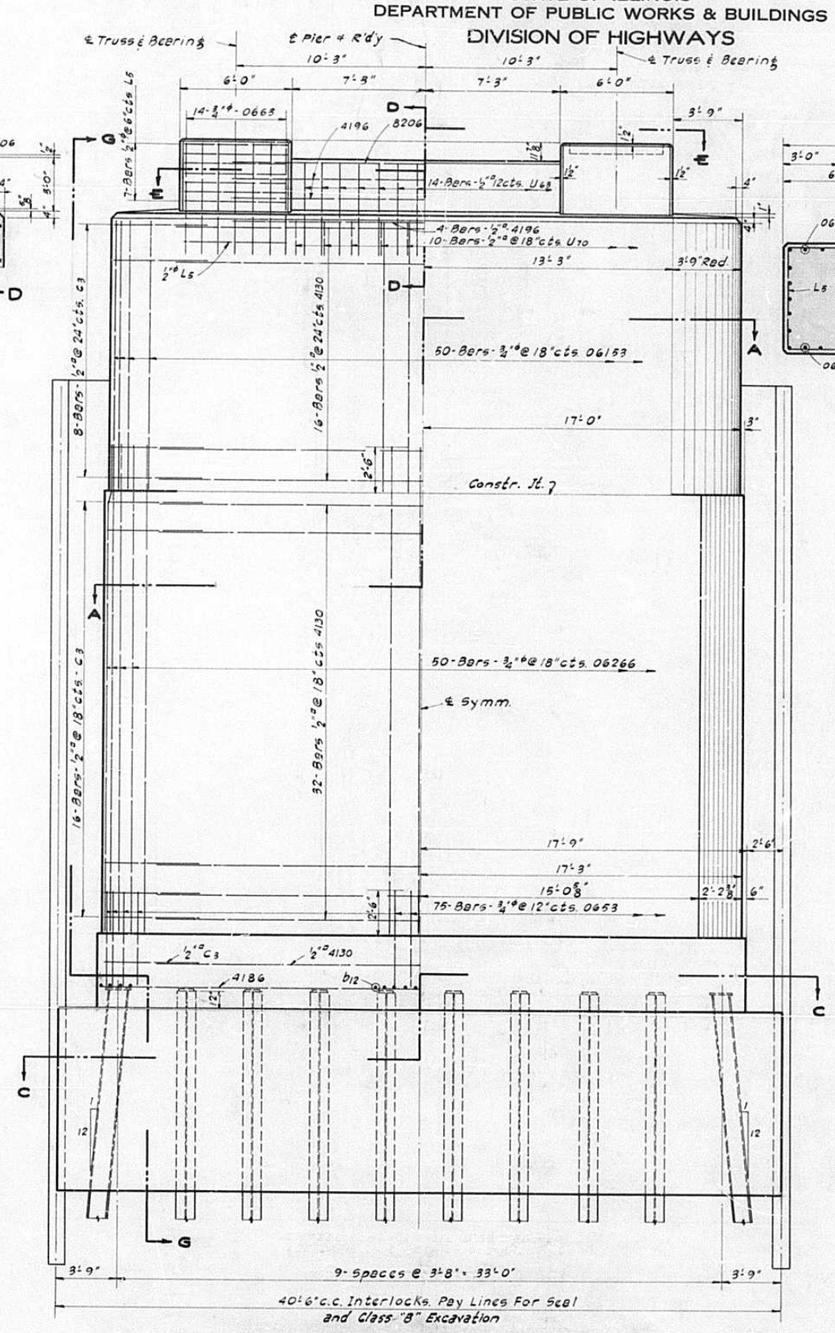
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	21
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 20
30 SHEETS

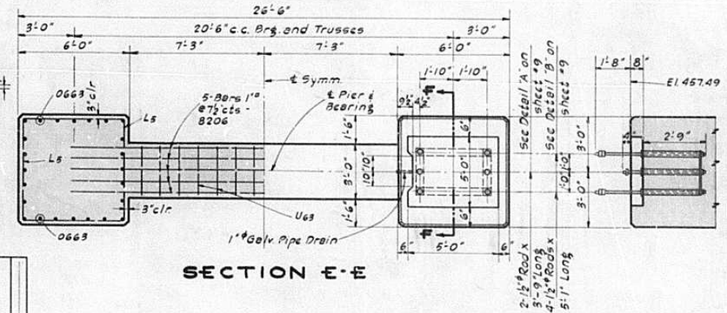


SECTION D-D

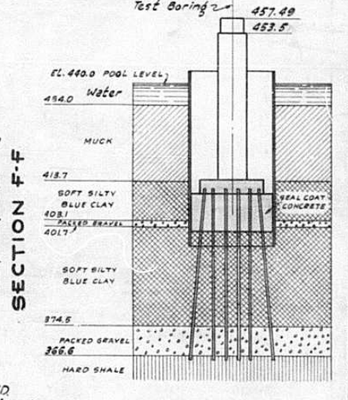
SECTIONAL ELEVATION G-G



SIDE ELEVATION
PIER 15



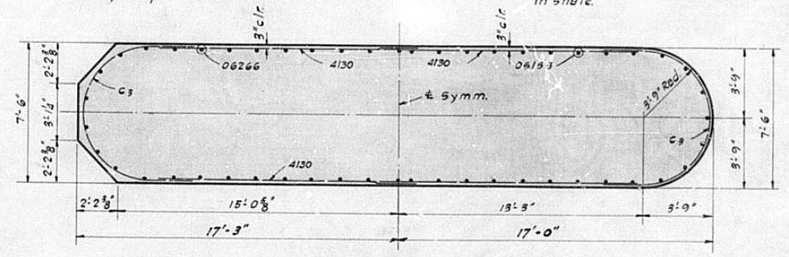
SECTION E-E



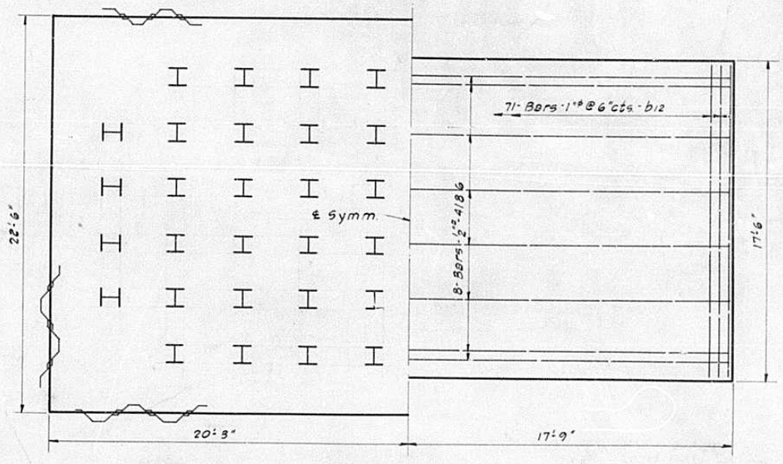
SECTION F-F

BILL OF MATERIAL FOR ONE ANCHOR BOLT ASSEMBLY - 2 REQ'D.
4-1½"ø Rods x 5'-1" Long - 3-Hex nuts each - Thread both ends - 6"
2-1½"ø Rods x 3'-9" Long - 2-Hex. nuts each - " " " 6"
6-6"ø Pipe sleeves. Thread one end 1½"
2-Bars - 6"x½"x 4'-3"
2-Bars - 6"x½"x 2'-7"
2-Pipe caps. See Detail 'A' sheet #9
4-Pipe caps. See Detail 'B' sheet #9

Sub soil conditions shown are as indicated by a test boring taken at the intersection of the center of the pier and the center of the rdy. Steel bearing piles shown are 12"@ 53# driven to refusal in shale.



SECTION A-A



SECTION C-C

All Piles are 12"-53# steel Bearing Piles
56-Req'd - Est. Lgth. = 48 Ft.
For details of pile caps & points - see sht. #18

STANDARD	COMPUTED	W.S. Stevenson
	CHECKED	P. Anderson
	DRAWN	W.S.S. Y.P.
	CHECKED	D.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 12-15-1939
H. F. Bersch BRIDGE ENGINEER
PASSED [illegible] ENGINEER OF DESIGN
APPROVED [illegible] STATE HIGHWAY ENGINEER

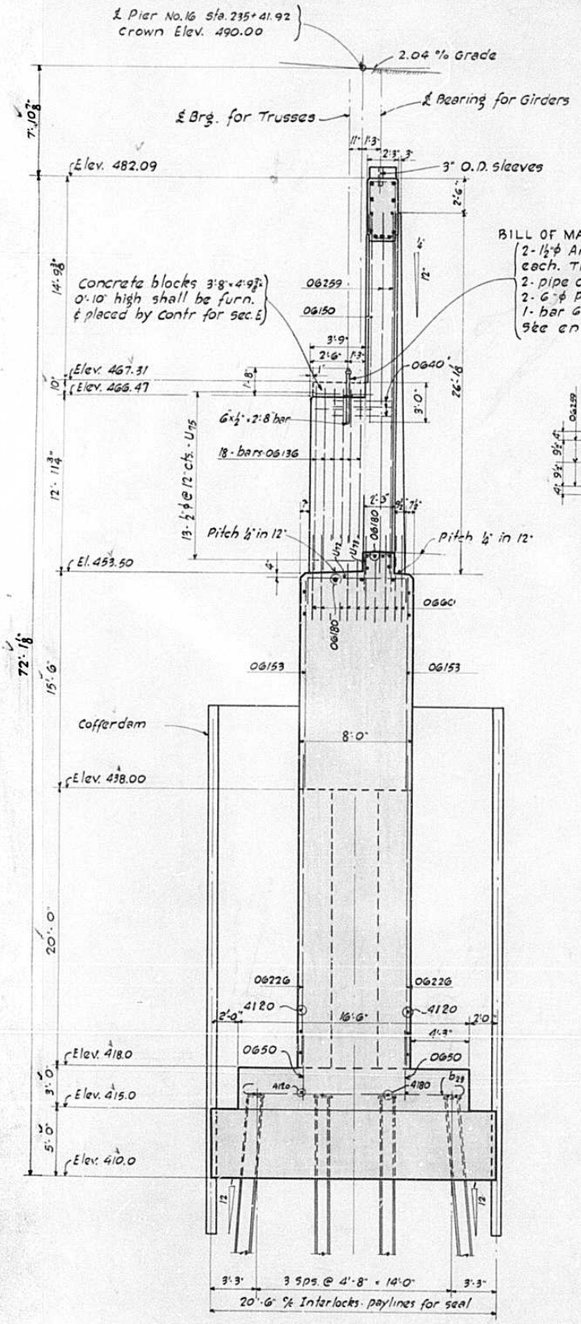
NOTES:
For Bill of Material and Reinforcement Bar List - See Sh. #8
For Details of Bent Bars - See Sh. No. 30

PIER No. 15
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172, SECTION 15-B
PEORIA - TAZEWELL COUNTIES

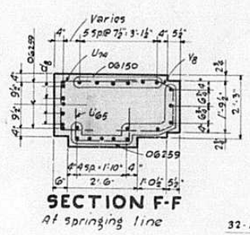
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	37	22
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: 609-A		

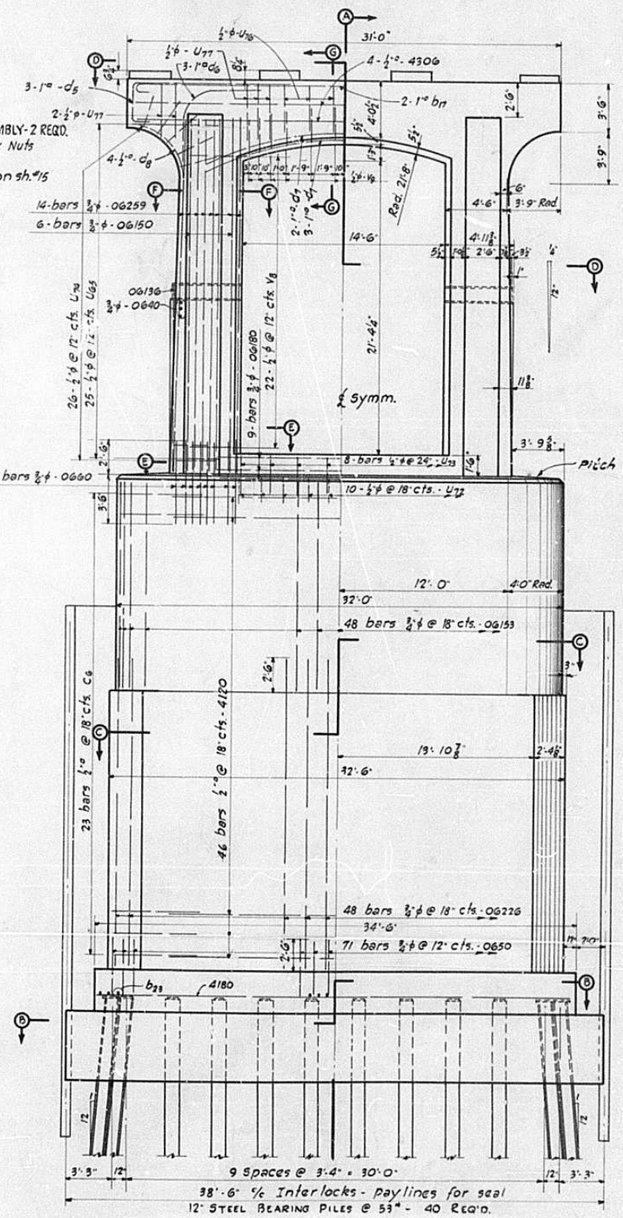
SHEET NO. 21
30 SHEETS



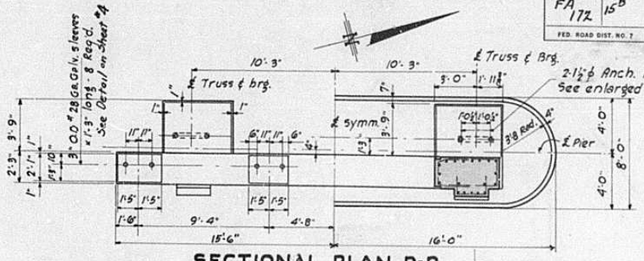
SECTION A-A



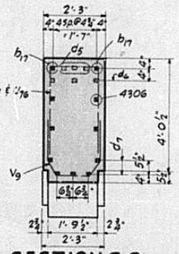
SECTION F-F
At springing line



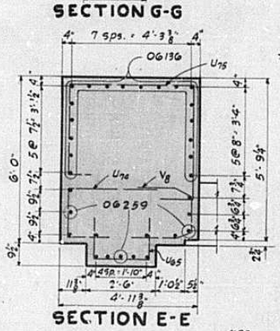
EAST ELEVATION
PIER #16



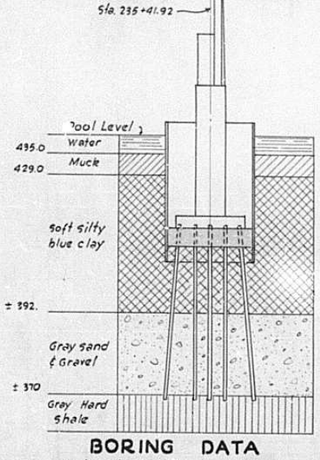
SECTIONAL PLAN D-D



SECTION G-G

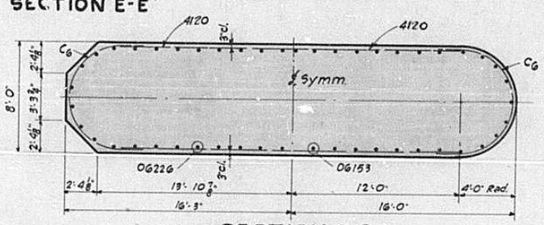


SECTION E-E

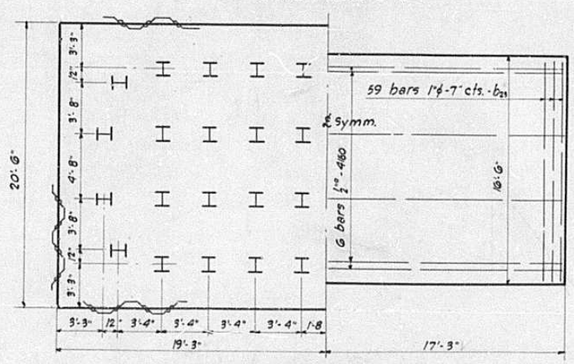


BORING DATA

Subsoil conditions shown above are as interpolated from test borings taken on the ℄ of roadway at Sta. 235+00 and Sta. 236+08. Steel bearing piles are 12"-53# driven to refusal in Shale. Estimated length of piles 50 ft.



SECTION C-C



SECTION B-B

PIER #16

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	
b_{17}	2	1"	33'-0"	BENT BARS
b_{23}	59	1¼	18'-6"	
C_6	46	1½"	15'-9"	
U_{65}	50	½"ϕ	6'-3"	
U_{72}	10	"	10'-0"	
U_{75}	8	"	7'-3"	
U_{76}	52	"	7'-0"	
U_{75}	26	"	13'-0"	
U_{76}	6	"	8'-9"	
U_{77}	10	"	9'-9"	
V_8	44	½"ϕ	5'-9"	
V_9	12	"	8'-0"	
d_5	6	1"	15'-0"	
d_6	6	"	8'-9"	
d_7	5	"	19'-0"	
d_8	8	1½"	6'-0"	
0650	71	¾"ϕ	5'-0"	STRAIGHT BARS
06226	48	"	22'-6"	
06153	48	"	15'-3"	
0660	64	"	6'-0"	
06259	28	"	25'-9"	
06150	12	"	15'-0"	
06136	36	"	13'-6"	
06180	9	"	18'-0"	
4180	12	1½"	18'-0"	
4120	96	"	12'-0"	
4306	4	"	30'-6"	
0640	6	¾"ϕ	4'-0"	

Reinforcement Bars	Lbs.	13185
Class X Concrete	Cu.Yds.	440.0
Seal Coat Concrete	Cu.Yds.	140.2
Structural Steel	Lbs.	440
Furnishing Steel Piles	Lbs.	107080
Pile Caps & Points	Lbs.	3440
Driving Steel Piles	Lin.ft.	2000
Driving Steel Test Piles	Each	2
Cofferdam	Each	One
Class B Excavation	Cu.Yds.	730

See Sht. #30 for details of bent bars.
See Sht. #18 for Pile Caps, Points & Splices

STANDARD	COMPUTED	W.B. Hennessy
	CHECKED	A.R. Thomas
	DRAWN	C.L. HAZLETT
	CHECKED	A.R.T.
SPECIAL	ASSEMBLED	
	CHECKED	

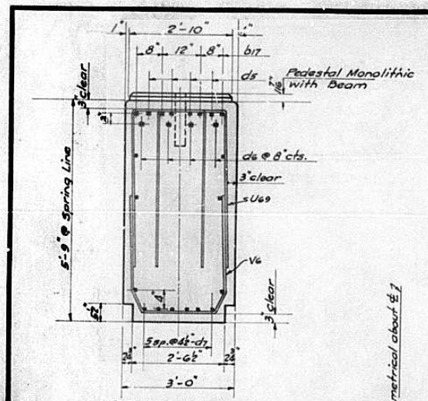
EXAMINED 12-15-1939
H.F. Bureau
BRIDGE ENGINEER
PASSED W.L. Furman
ENGINEER OF DESIGN
APPROVED Earl Sidenman
CHIEF HIGHWAY ENGINEER

PIER No. 16
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 SECTION 15-B
PEORIA TAZEWELL COUNTIES

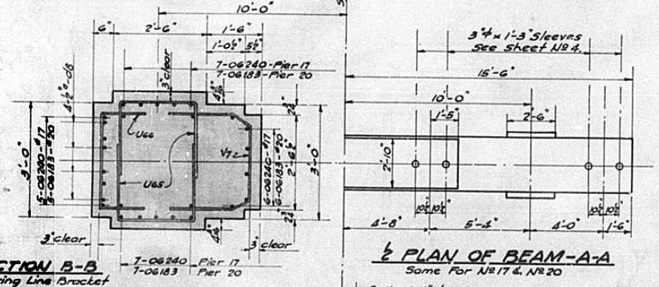
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	23
F.D. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 609-A		

SHEET NO. 22
30 SHEETS

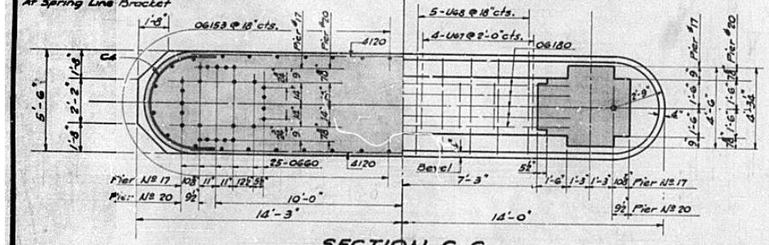


SECTION E-E

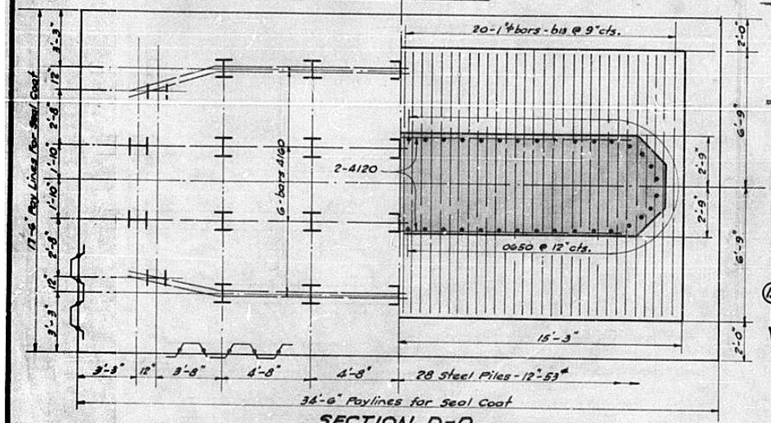


SECTION B-B
At Spring Line Bracket

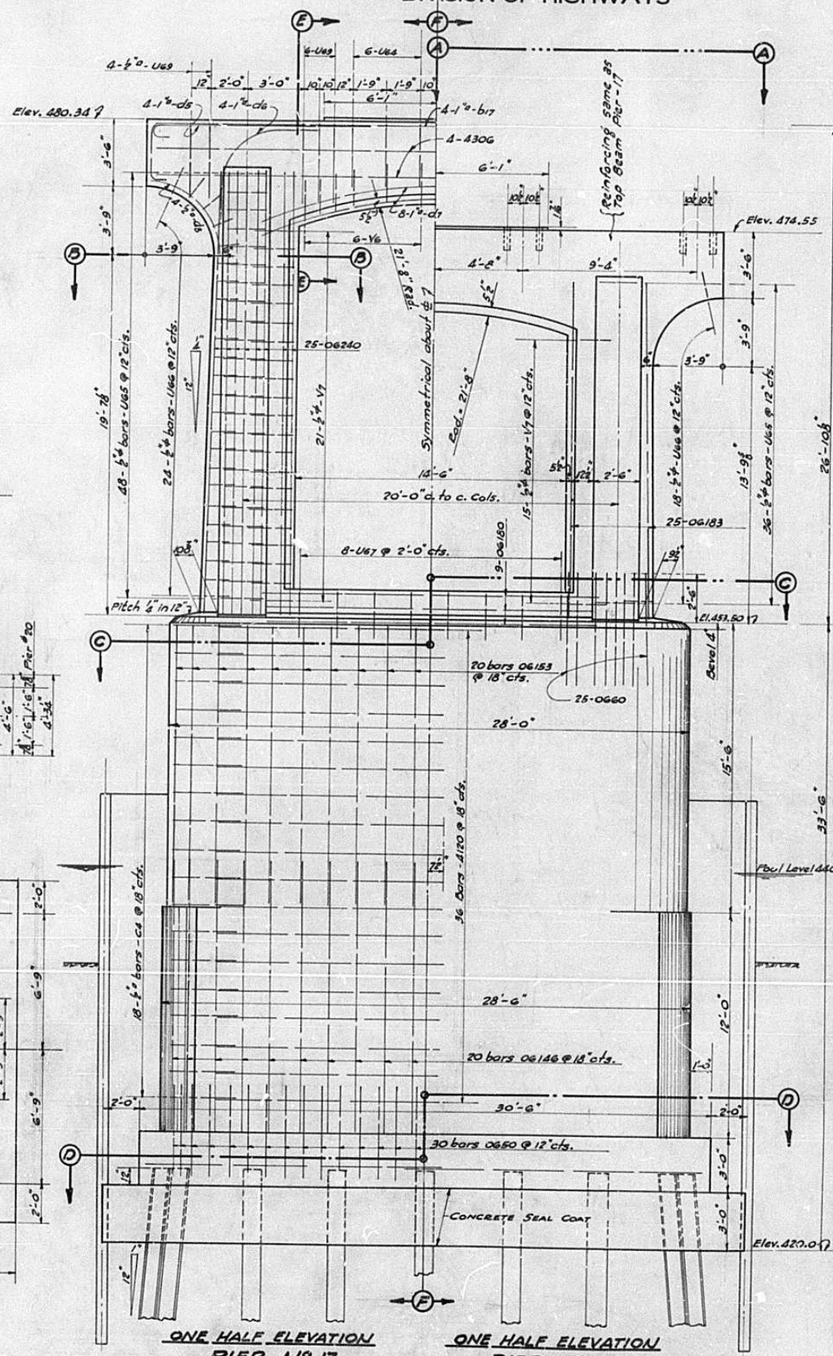
℄ PLAN OF BEAM-A-A
Same For Nº 17 & Nº 20



SECTION C-C



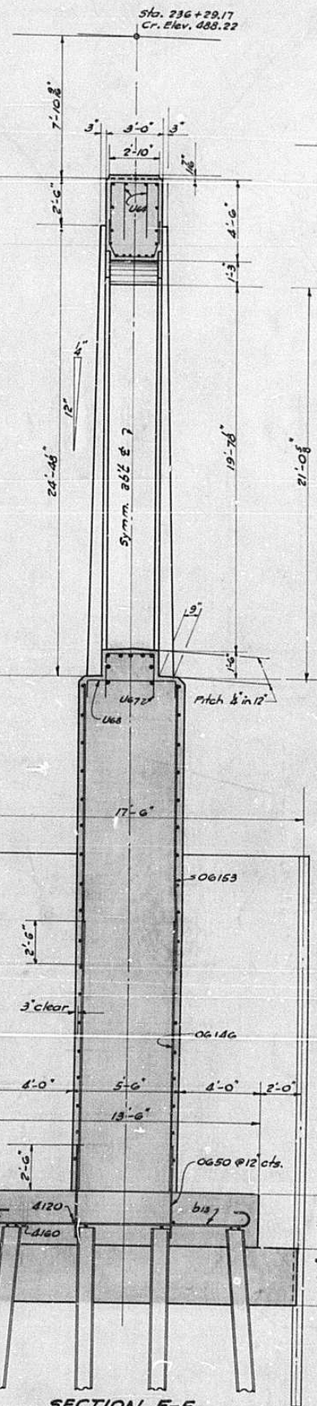
SECTION D-D



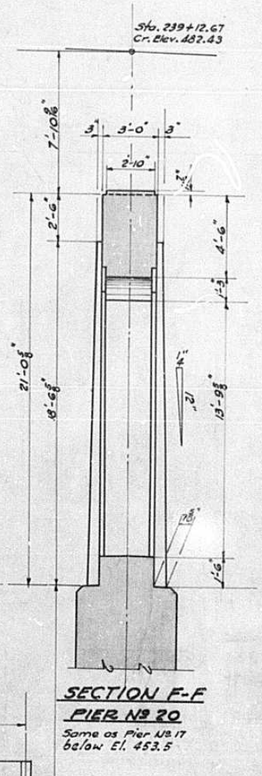
ONE HALF ELEVATION
PIER Nº 17

ONE HALF ELEVATION
PIER Nº 20

Piers Nº 17 & Nº 20 are similar exceptions are shown & noted.



SECTION F-F
PIER Nº 20
Same as Pier Nº 17 below El. 453.5

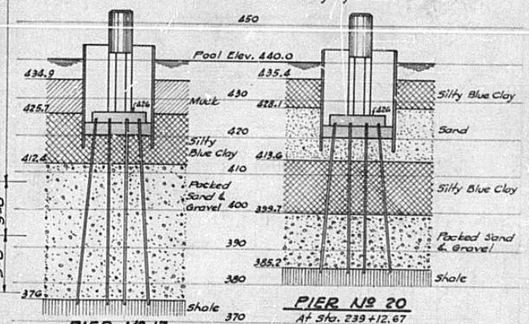


BILL OF MATERIAL
REINFORCEMENT BARS

MARK	NUMBER PIER 17	NUMBER PIER 20	SIZE	LENGTH
4120	76	76	½"ø	12'-0"
4160	12	12	"	16'-0"
4306	4	4	"	30'-6"
0650	60	60	¾"ø	5'-0"
0660	50	50	"	6'-0"
06146	40	40	"	14'-6"
06153	40	40	"	15'-3"
06180	9	9	"	18'-0"
06183		50	"	18'-3"
06240	50		"	24'-0"
bi7	4	4	1"ø	33'-0"
bi3	40	40	1¼ø	15'-6"
c4	36	36	⅝"ø	10'-0"
d5	8	8	1"ø	15'-0"
d6	8	8	1"ø	8'-9"
d7	8	8	1"ø	19'-0"
d8	8	8	⅝"ø	6'-0"
U66	12	12	⅝"ø	8'-9"
U65	96	72	¾"ø	6'-3"
U66	48	36	¾"ø	5'-0"
U67	8	8	¾"ø	6'-9"
U68	10	10	¾"ø	7'-0"
U69	20	20	¾"ø	10'-0"
V6	12	12	⅝"ø	8'-9"
V7	42	30	¾"ø	6'-3"

ITEM	UNIT	PIER 17	PIER 20
Reinforcement Bars	Lbs	10560	9930
Class X Concrete	Cu.Yds	243.4	235.8
Seal Coat Concrete	Cu.Yds	67.1	67.1
Furnishing Steel Piles	Lbs.	78230	64870
Pile Caps & Points	Lbs	2410	2410
Driving Steel Piles	Lin. Ft.	1456	1204
Driving Steel Test Piles	Each	2	2
Cofferdam	Each	1	1
Class B Excavation	Cu.Yds	333.0	344.0

Subsoil condition for Pier 17 are as interpolated between test borings taken at Sta. 236+08 and Sta. 236+58 and for Pier 20 as indicated by test boring at Sta. 239+22.
All piles are 12"-53# Steel bearing piles. 28 required for each pier.
Estimated length = 32 ft. for Pier 17.
" = 43 ft. " Pier 20.
All piles driven to refusal in underlying shale.



PIER Nº 17
At Sta. 236+29.17

PIER Nº 20
At Sta. 239+12.67

SCALE 1"=20'

STANDARD	COMPUTED	Frank A Coy	EXAMINED 12-15-1939
	CHECKED	A.L. Thomas	H.F. Purcell BRIDGE ENGINEER
	DRAWN	F.H.C. F.R. McHugh	PASSED ENGINEER OF DESIGN
	CHECKED	A.L.T.	
SPECIAL	ASSEMBLED		APPROVED CHIEF HIGHWAY ENGINEER
	CHECKED		

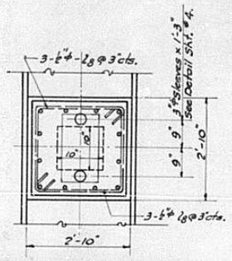
See Sh.ᵐ 30 for Bent Bar Details
See Sh.ᵐ 18 for Pile Caps, Points & Splices.

PIERS 17 & 20
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172. SECTION 15.B
PEORIA - TAZEWELL COUNTIES

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

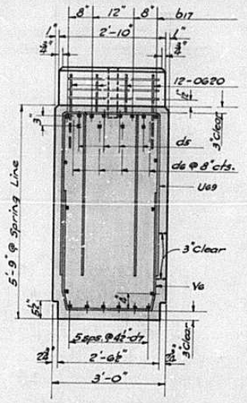
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	6B	Peoria, Tazewell	31	24
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609-A		

SHEET NO. 23
30 SHEETS

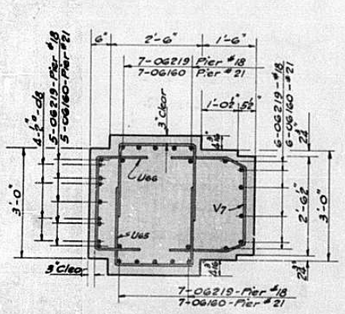


PLAN OF PEDESTALS

4 - Pedestals alike except as shown in elevation. Provide 10"x10"x2" deep key if pedestals are not monolithic with girder.

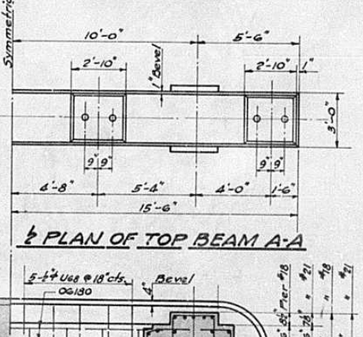


SECTION E-E

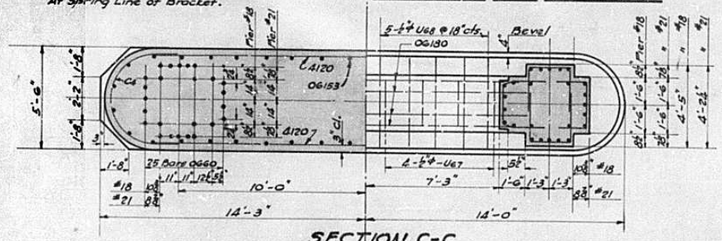


SECTION B-B

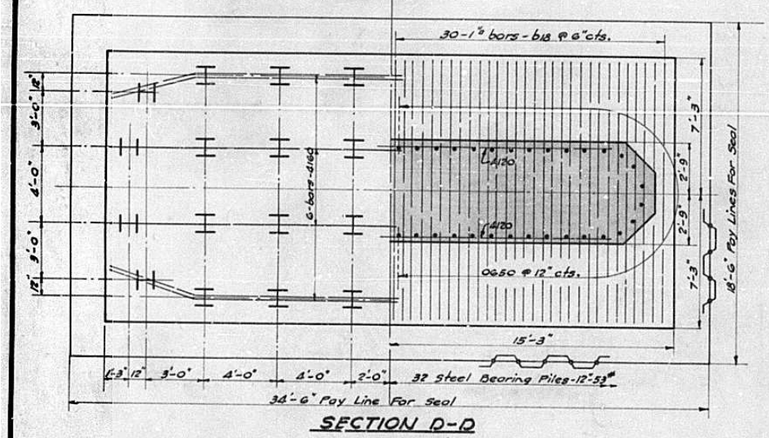
At Spring Line of Bracket.



½ PLAN OF TOP BEAM A-A



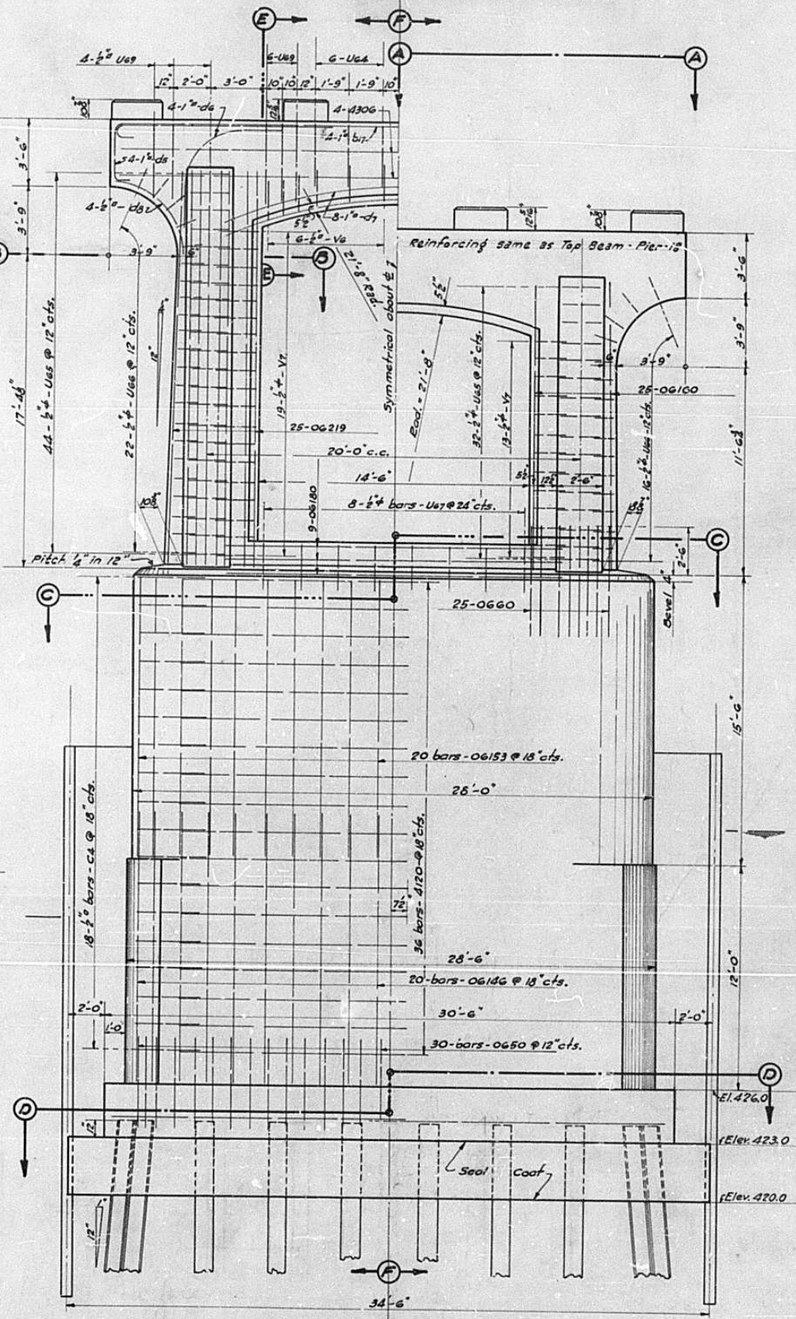
SECTION C-C



SECTION D-D

STANDARD	COMPUTED	Fondaco Sy
	CHECKED	A.L. Jones
	DRAWN	F.A.C. F.E. McHugh
	CHECKED	A.L.J.
SPECIAL	ASSEMBLED	
	CHECKED	

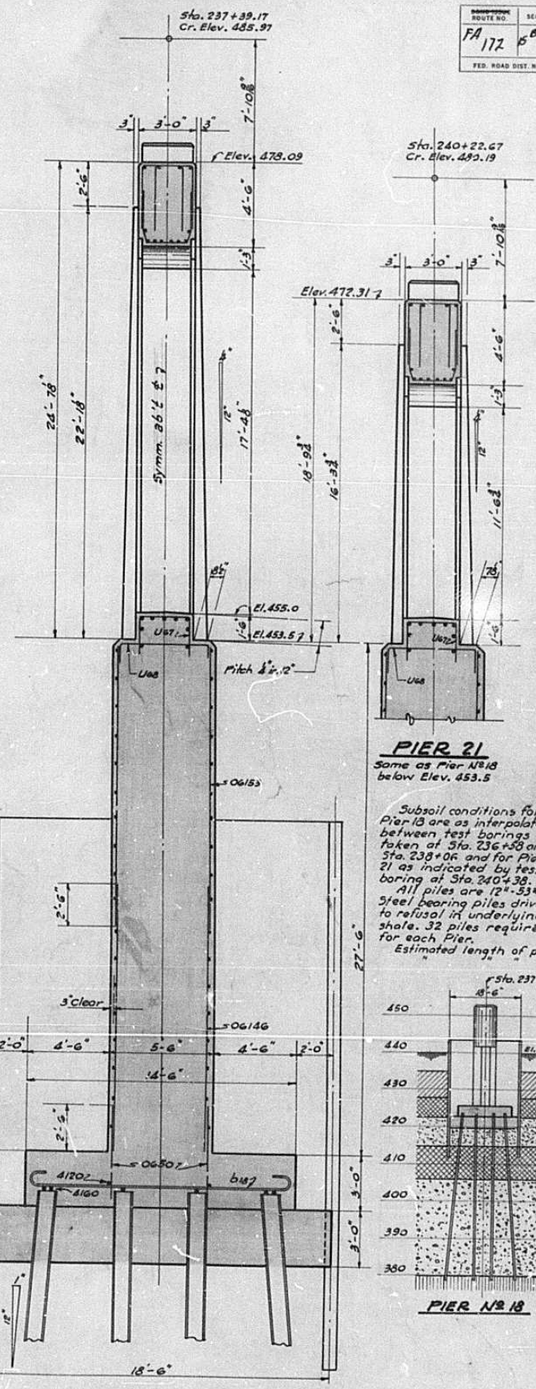
EXAMINED 12-15-1939
H.T. Burch BRIDGE ENGINEER
PASSED W. Summerfield ENGINEER OF DESIGN
APPROVED Ernest Lishman CHIEF HIGHWAY ENGINEER



ONE HALF ELEVATION PIER Nº 18

ONE HALF ELEVATION PIER Nº 21

Piers 18 & 21 are similar, exceptions are shown and noted.



SECTION F-F PIER Nº 18

See Sh. #30 for Bent Bar Details
See Sh. #18 for Pile Caps, Points & Splices

PIER 21

Same as Pier Nº 18 below Elev. 453.5

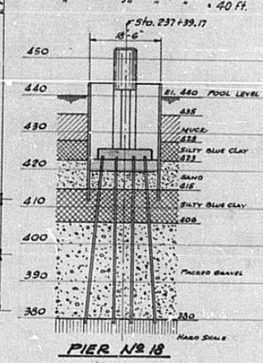
Subsoil conditions for Pier 18 are as interpolated between test borings taken at Sta. 236+58 and Sta. 238+06 and for Pier 21 as indicated by test boring at Sta. 240+38. All piles are 12"-53# Steel bearing piles driven to refusal in underlying shale. 32 piles required for each Pier.
Estimated length of piles : 48 ft. for Pier 18.
" " " : 40 ft. " " 21.

BILL OF MATERIAL

REINFORCEMENT BARS

MARK	NUMBER Pier 18	NUMBER Pier 21	SIZE	LENGTH
4120	76	76	½"ϕ	12'-0"
4160	12	12	"	16'-0"
4306	4	4	"	30'-6"
0620	48	48	¾"ϕ	2'-0"
0650	60	60	"	5'-0"
0660	50	50	"	6'-0"
06146	40	40	"	14'-6"
06153	40	40	"	15'-3"
06180	9	9	"	18'-0"
06219	50		"	21'-9"
06160		50		16'-0"
b17	4	4	1"ϕ	33'-0"
b18	60	60	1"ϕ	16'-6"
C4	36	36	½"ϕ	10'-0"
d5	8	8	1"ϕ	15'-0"
d6	8	8	"	8'-9"
d7	8	8	"	19'-0"
d8	8	8	½"ϕ	6'-0"
J8	24	24	½"ϕ	5'-6"
U68	12	12	½"ϕ	8'-9"
U65	88	64	¾"ϕ	6'-3"
U66	44	32	"	5'-0"
U67	8	8	"	8'-9"
U68	10	10	"	7'-0"
U69	20	20	½"ϕ	10'-0"
Va	12	12	½"ϕ	8'-9"
V7	38	26	¾"ϕ	6'-3"

Item	Unit	Pier 18	Pier 21
Reinforcement Bars	Lbs.	12,270	11650
Class X Concrete	Cu.Yds	244.9	237.5
Seal Coat Concrete	Cu.Yds	70.9	70.9
Furnishing Steel Piles	Lbs.	82470	68,900
Pile Caps & Points	Lbs.	2752	2752
Driving Steel Piles	Lin.Ft.	1536	1280
Driving Steel Test Piles	Each	2	2
Cofferdam	"	1	1
Class B Excavation	Cu.Yds	355	379



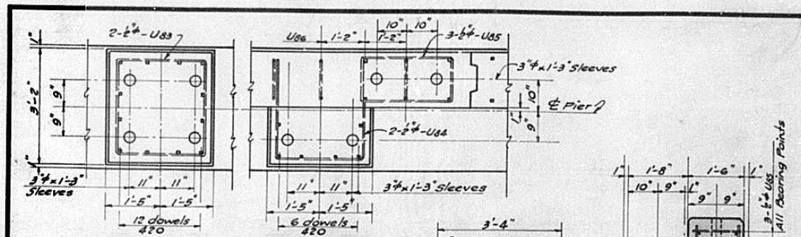
PIER Nº 18 PIER Nº 21

PIERS 18 & 21
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172. SECTION 15-B
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	25
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 602 A		

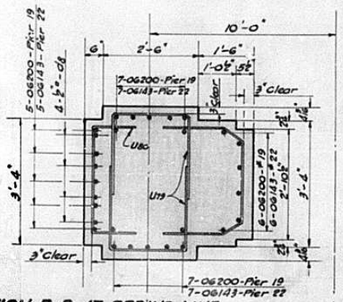
SHEET NO. 24
30 SHEETS

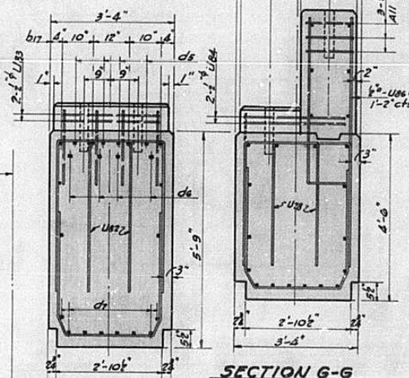


PIER Nº 19 PIER Nº 22

TYPICAL BEARING POINTS

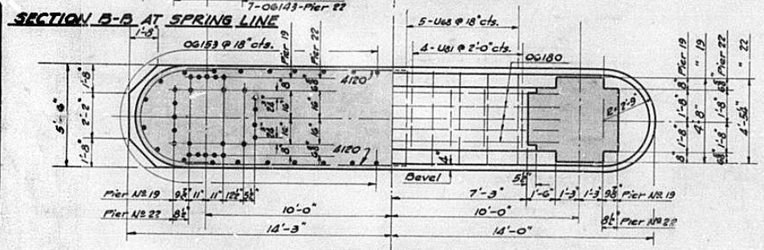
See Sheet Nº 4 For Detail of Sleeves.



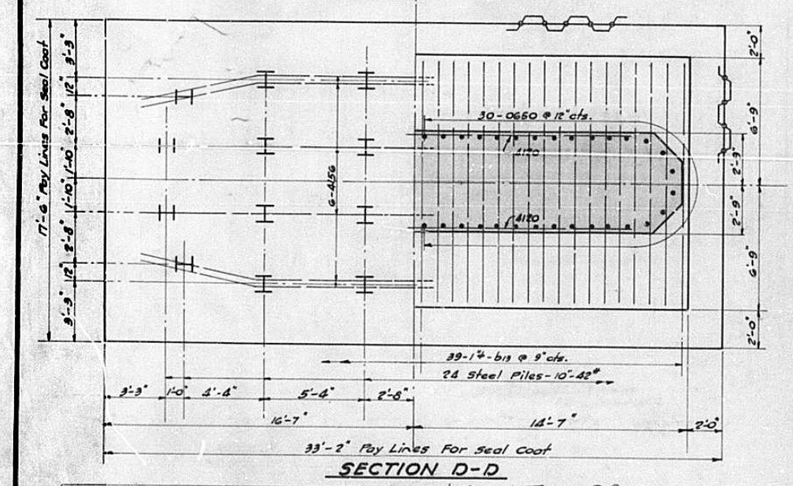


SECTION E-E PIER Nº 19

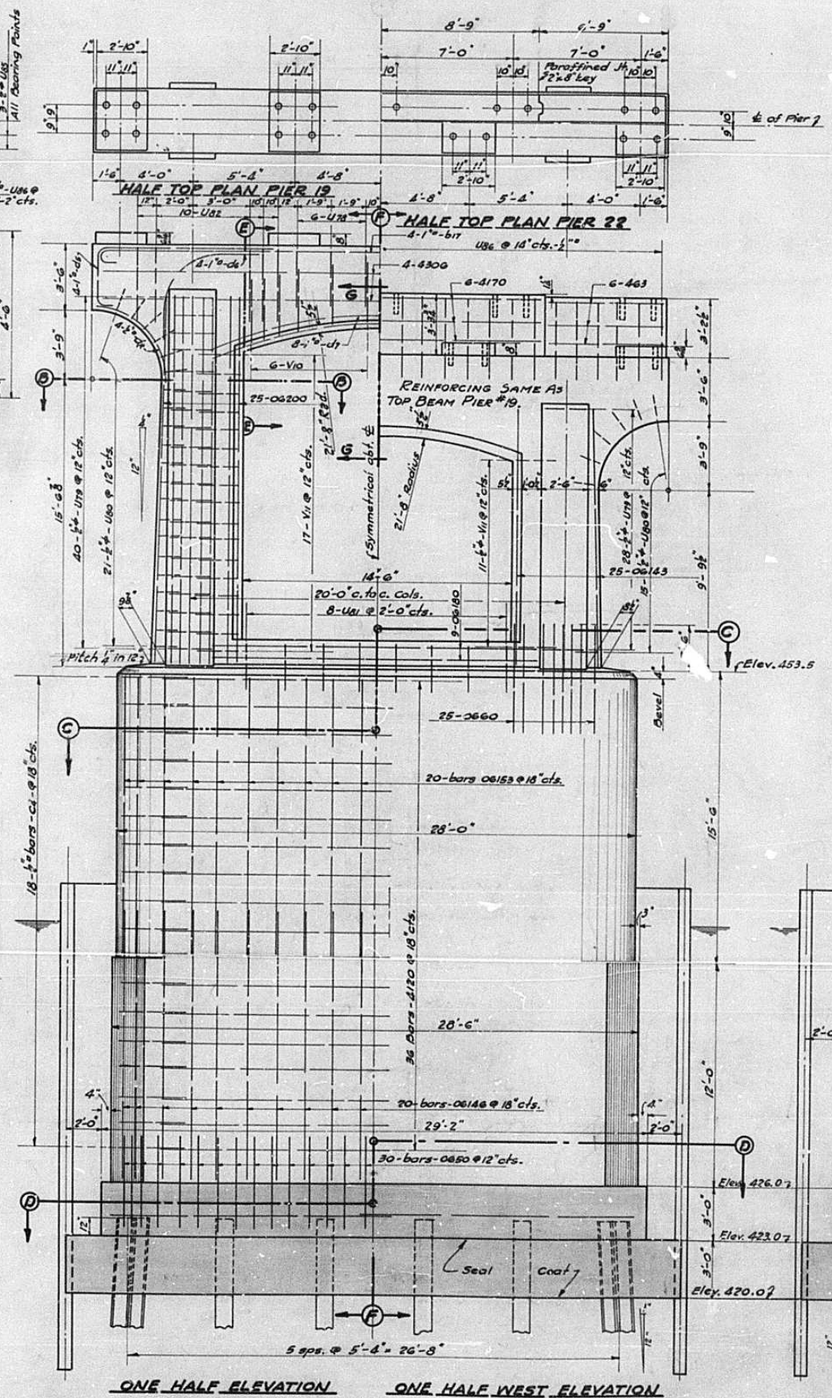
SECTION G-G PIER Nº 22



SECTION C-C



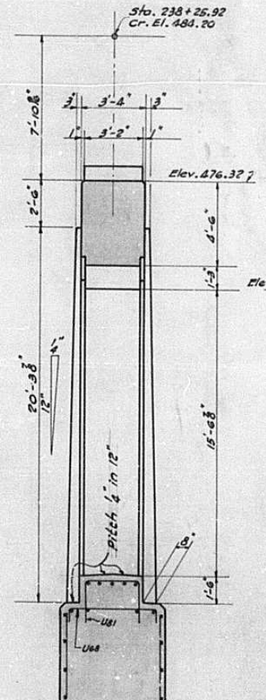
SECTION D-D



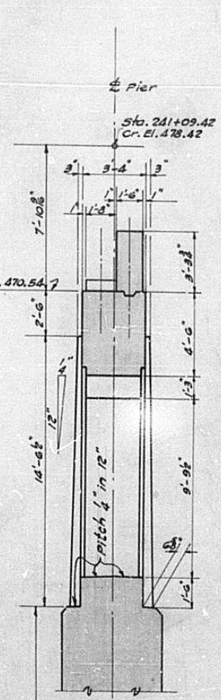
ONE HALF ELEVATION PIER Nº 19

ONE HALE WEST ELEVATION PIER Nº 22

Piers Nº 19 & Nº 22 are similar exceptions are shown & noted.

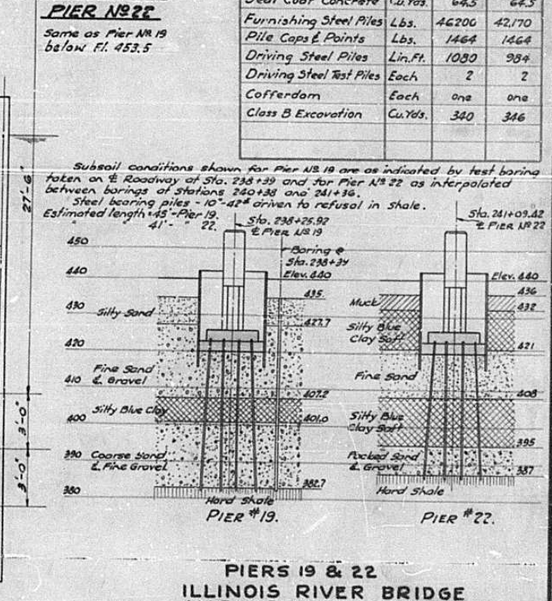


SECTION F-F PIER Nº 19



SECTION F-F PIER Nº 22

Same as Pier Nº 19 below El. 453.5



SECTION F-F PIER Nº 19

See Sh. #30 for Details of Bent Bars
See Sh. #27 for Pile Caps, Points & Splices

BILL OF MATERIAL

REINFORCEMENT BARS

Mark	Number Pier 19	Number Pier 22	Size	Length
4120	76	76	½"	12'-0"
4156	17	12	"	15'-6"
4306	4	4	"	30'-6"
4170		6	"	17'-0"
463		12	"	6'-3"
420	48	24	"	2'-0"
0650	60	60	¾"	5'-0"
0660	50	50	"	6'-0"
06163		50	"	14'-3"
06200	50		"	20'-0"
06180	9	9	"	18'-0"
06146	40	40	"	14'-6"
06153	40	40	"	15'-3"
b12	39	39	1"	15'-6"
b17	4	4	1"	33'-0"
d4	36	36	½"	10'-0"
d5	8	8	1"	15'-0"
d6	8	8	1"	8'-9"
d7	8	8	1"	19'-0"
d8	8	8	½"	6'-0"
U68	10	10	⅝"	7'-0"
U78	12	12	½"	9'-0"
U79	80	56	½"	7'-0"
U80	42	30	"	5'-3"
U81	8	8	"	7'-0"
U82	20	20	½"	10'-3"
U83	8		½"	11'-3"
U84		8	½"	8'-0"
U85		15	½"	8'-3"
U86		27	½"	10'-0"
V10	12	12	½"	9'-0"
V11	34	22	½"	6'-6"

Item	Unit	Pier 19	Pier 22
Reinforcement Bars	Lbs.	10,300	10,060
Class X Concrete	Cu. Yds.	240.9	235.7
Seal Coat Concrete	Cu. Yds.	64.5	64.5
Furnishing Steel Piles	Lbs.	46206	42,170
Pile Caps & Points	Lbs.	1464	1464
Driving Steel Piles	Lin. Ft.	1080	984
Driving Steel Test Piles	Each	2	2
Cofferdam	Each	one	one
Class B Excavation	Cu. Yds.	340	346

Subsoil conditions shown for Pier Nº 19 are as indicated by test boring taken on ℄ Roadway at Sta. 238+39 and for Pier Nº 22 as interpolated between borings at Stations 240+38 and 241+36.
Steel bearing piles - 10"-42# driven to refusal in Shale.
Estimated length 45'-Pier 19. 41'-Pier 22.

STANDARD	COMPUTED	Frankfeldt	
	CHECKED	A. L. Jones	
	DRAWN	T.J.C.	E. R. McHugh
	CHECKED	A.L.J.	
SPECIAL	ASSEMBLED		
	CHECKED		

EXAMINED 12-15-1939
H. F. Bundy BRIDGE ENGINEER
PASSED ENGINEER OF DESIGN
APPROVED CHIEF HIGHWAY ENGINEER

PIERS 19 & 22
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172. SECTION 15-B
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	26

FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT - 669-A

SHEET NO. 25
30 SHEETS

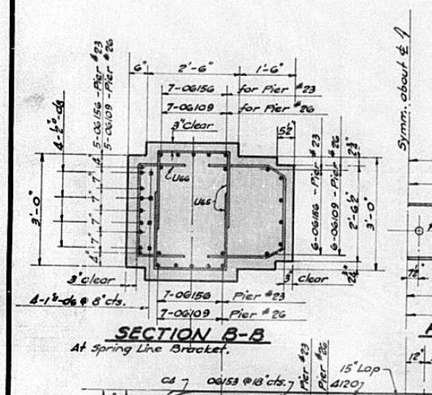
BILL OF MATERIAL

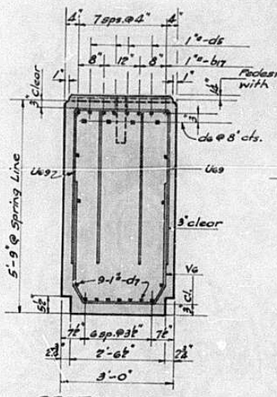
REINFORCEMENT BARS

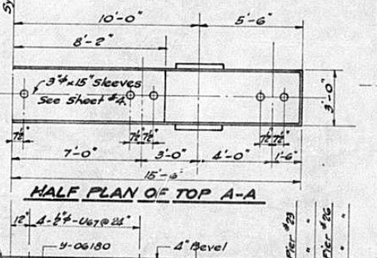
Mark	Number Pier 23	Number Pier 26	Size	Length
4306	4	4	1¼"	30'-6"
4120	72	72	"	12'-0"
4160	16	16	"	16'-0"
06156	50		¾"	15'-6"
06109		50	"	10'-9"
0660	50	50	"	6'-0"
06180	9	9	"	18'-0"
06153	40	40	"	15'-3"
06146	40	40	"	14'-6"
0650	40	40	"	5'-0"
b19	64	64	¾"	14'-3"
b17	4	4	1"	33'-0"
c4	36	36	½"	10'-0"
d5	8	8	1"	15'-0"
d6	8	8	"	8'-0"
d7	9	9	"	19'-0"
d8	8	8	½"	6'-0"
U64	12	12	½"	8'-9"
U65	60	80	½"	6'-3"
U66	32	22	"	5'-0"
U67	8	8	"	6'-9"
U68	10	10	"	7'-0"
U69	20	20	½"	10'-0"
V6	12	12	½"	8'-9"
V7	24	16	¾"	6'-3"

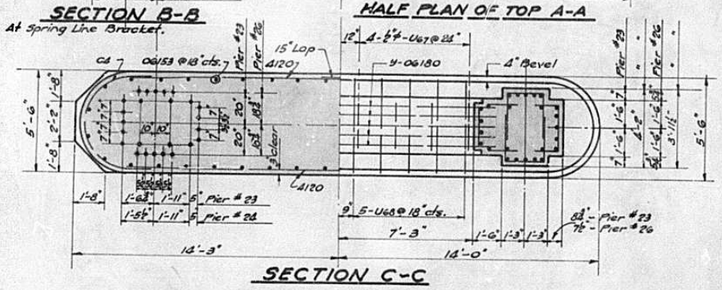
Item	Unit	Pier 23	Pier 26
Reinforcement Bars	Lbs.	9285	8715
Class "X" Concrete	Cu.Yds.	279.2	223.2
Seal Coat Concrete	Cu.Yds.	63.3	63.3
Furnishing Steel Piles	Lbs.	49060	51410
Pile Caps & Points	Lbs.	1708	1708
Driving Steel Piles	Lin.Ft.	1148	1204
Driving Steel Test Piles	Each	2	2
Cofferdam	Each	one	one
Class "B" Excavation	Cu.Yds.	359	390

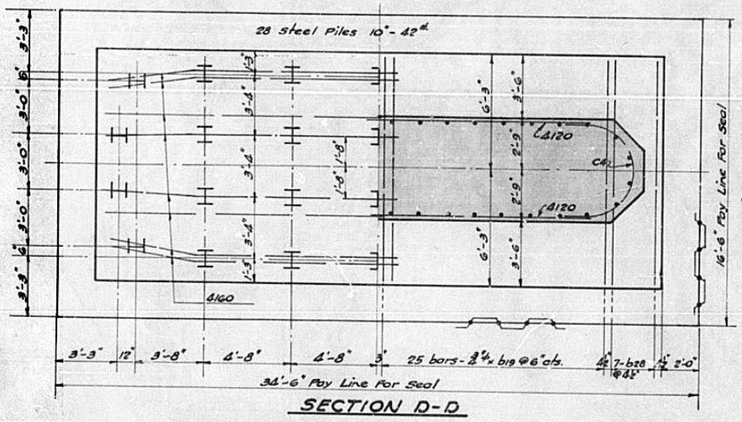
Subsoil condition shown for Pier 23 are as indicated by test borings taken at Sta. 241+86 and Sta. 242+00. For Pier 26, conditions are as interpolated between test borings taken at Sta. 243+89 and Sta. 244+99.
All piles are 10"-42# steel bearing piles, driven to refusal in underlying shale.
Estimated length of piles = 41 ft. of Pier #23.
" " " = 43 ft. " " #26.

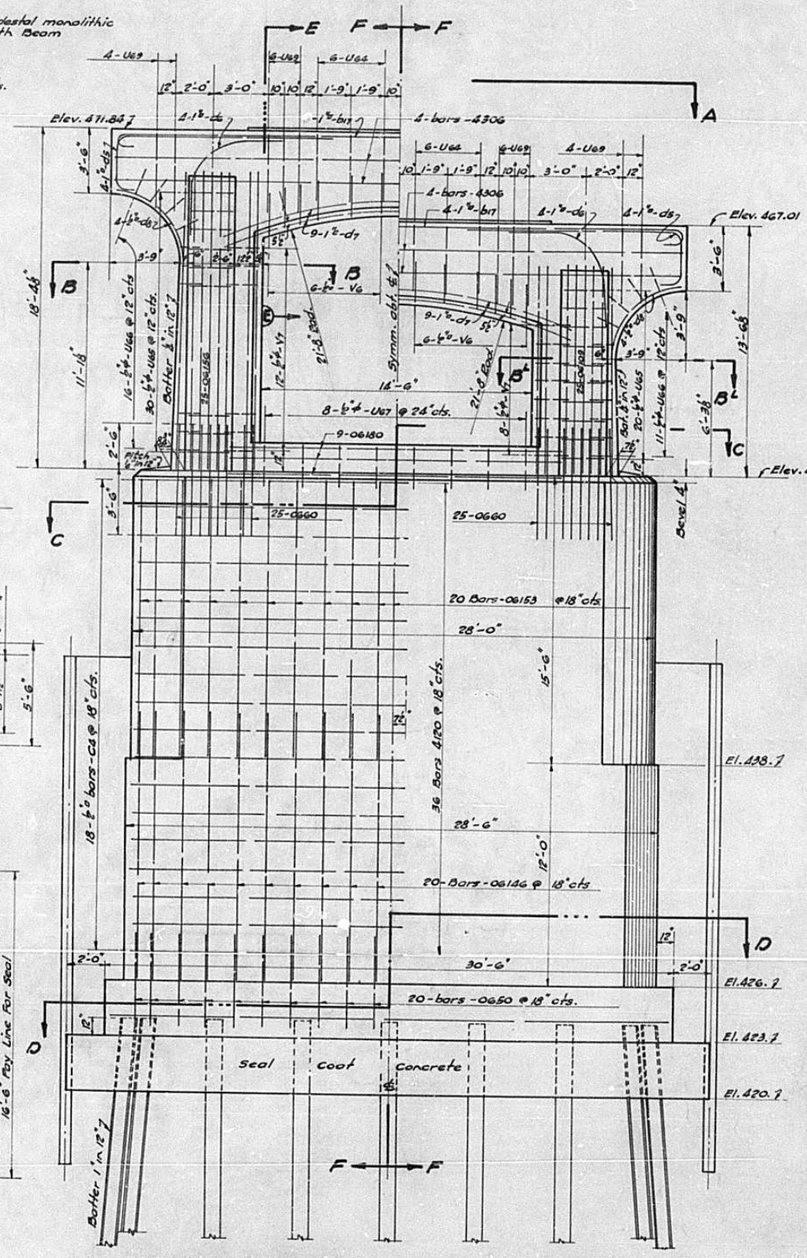


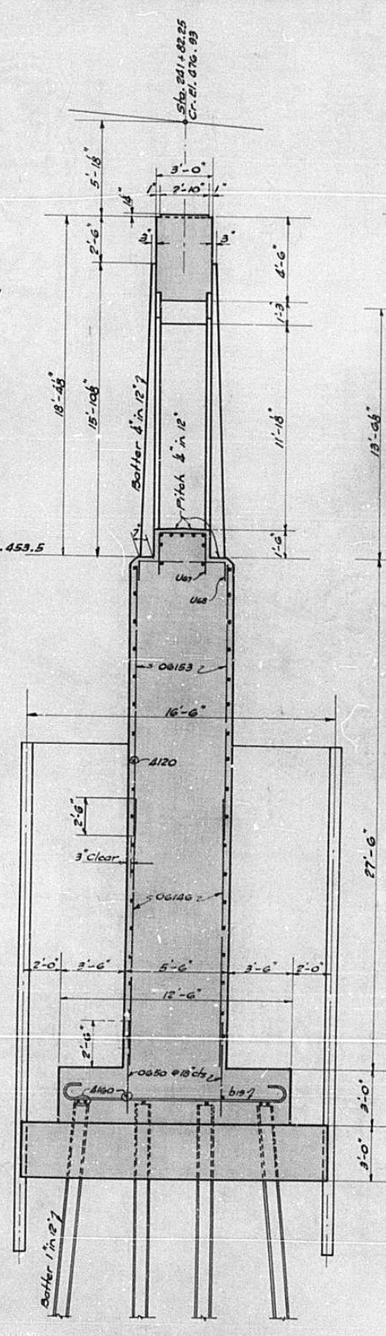


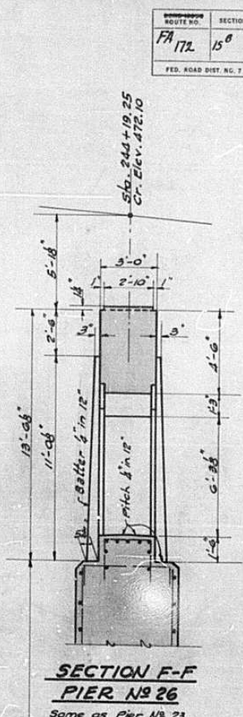


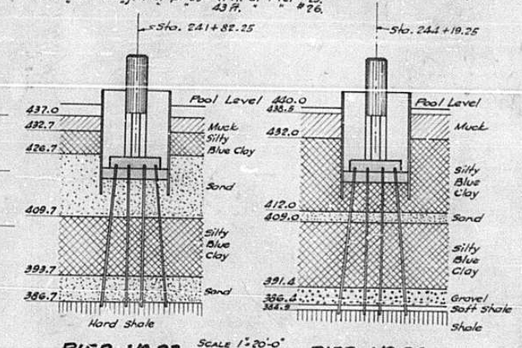












STANDARD	COMPUTED	J.A.Fraser	
	CHECKED	G.L.Thomas	
	DRAWN	J.A.F.	F.E.McMunn
	CHECKED	G.L.T.	
SPECIAL	ASSEMBLED		
	CHECKED		

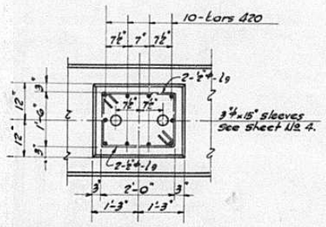
EXAMINED 12-15-1939
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

PIERS 23 & 26
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A ROUTE 172. SECTION 15-B
PEORIA - TAZEWELL COUNTIES

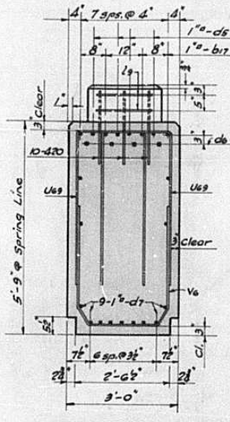
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	81	27
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609-A		

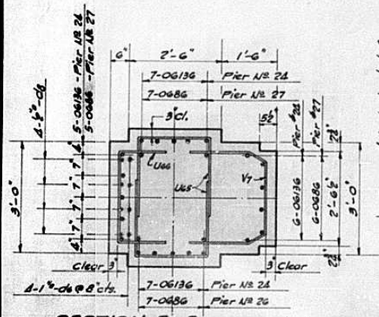
SHEET NO. 26
30 SHEETS



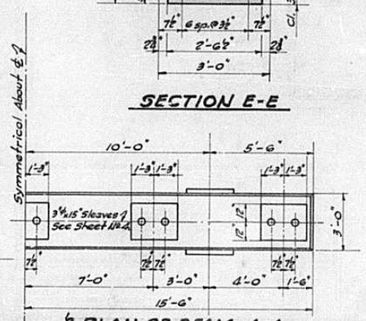
PLAN OF PEDESTALS



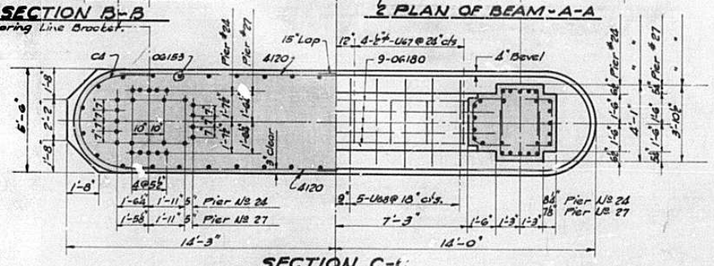
SECTION E-E



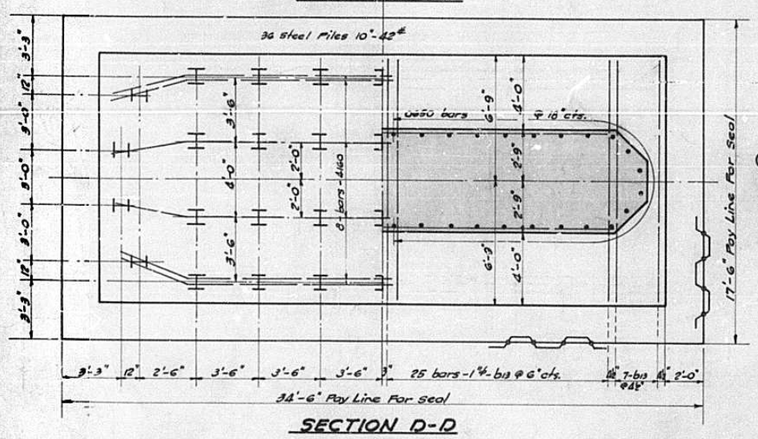
SECTION B-B
At Spring Line Bracket.



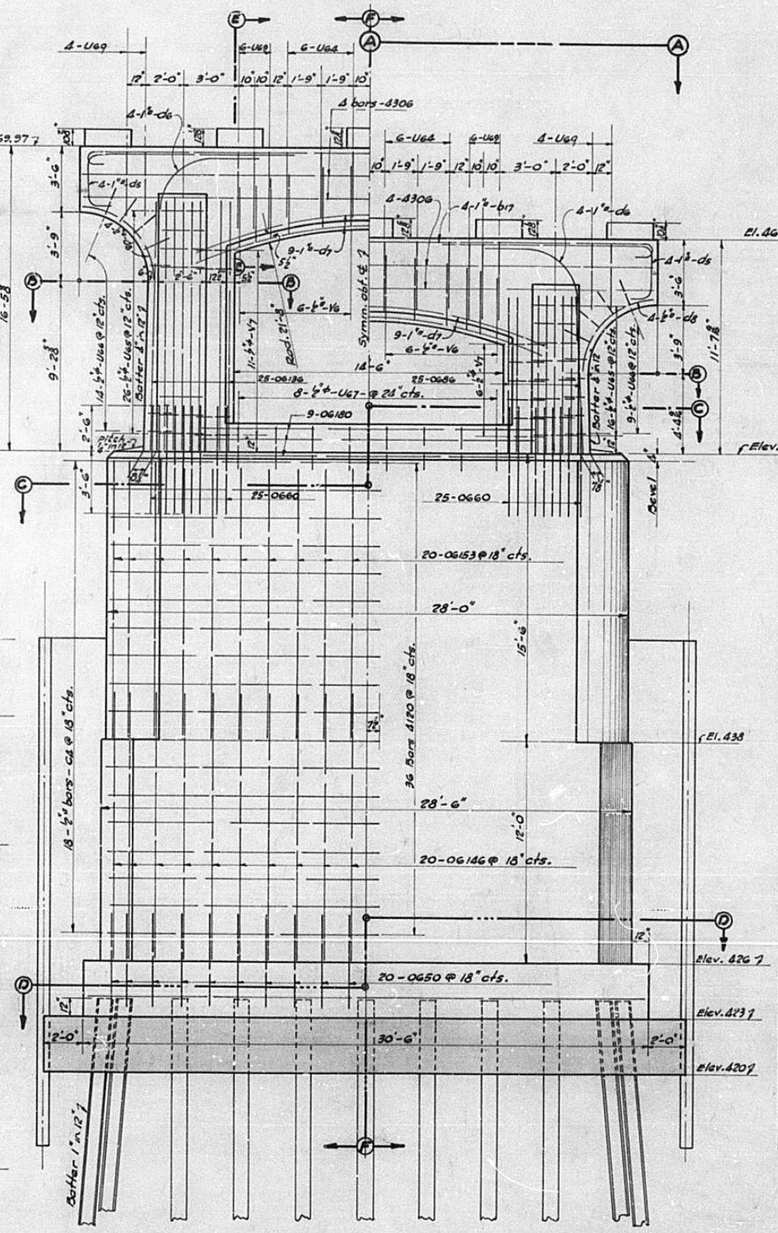
½ PLAN OF BEAM - A-A



SECTION C-C



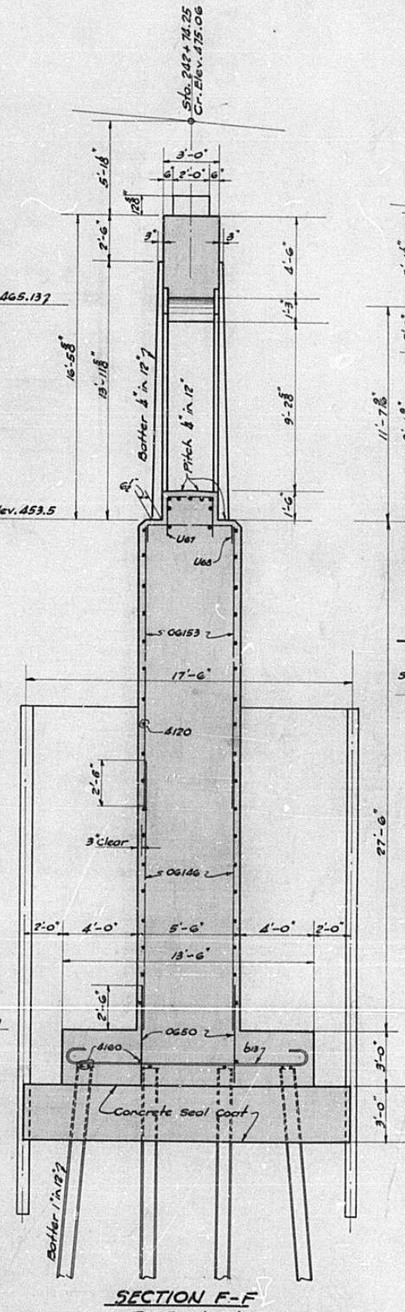
SECTION D-D



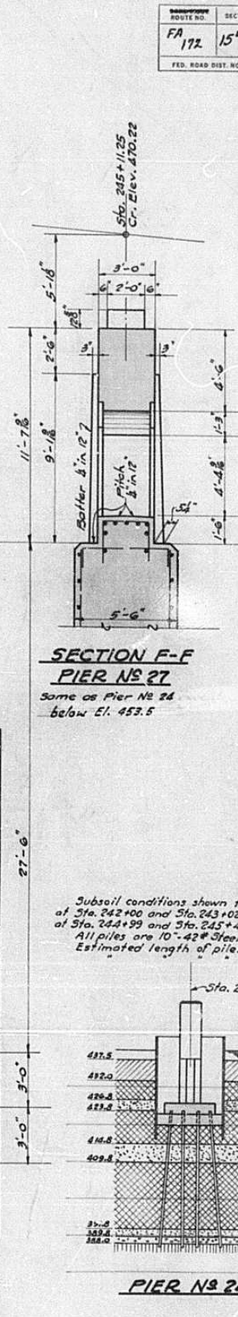
ONE HALF ELEVATION
PIER No 24

ONE HALF ELEVATION
PIER No 27

Piers No 24 & No 27 are similar except as shown & noted.



SECTION F-F
PIER No 27
Same as Pier No 24 below El. 453.5



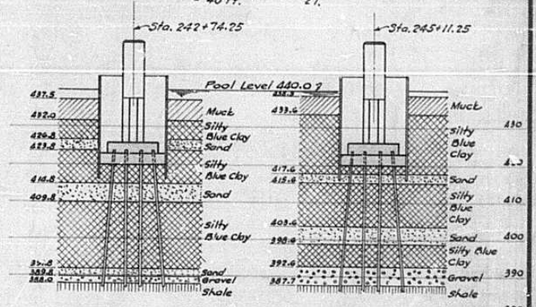
BILL OF MATERIAL

REINFORCEMENT BARS

Mark	Number Pier 24	Number Pier 27	Size	Length
4306	4	4	2"	30'-6"
4120	72	72	"	12'-0"
4160	16	16	"	16'-0"
06136	50		1¾"	13'-6"
0686		50	"	8'-6"
0660	50	50	"	6'-0"
06180	9	9	"	18'-0"
06153	40	40	"	15'-3"
06146	40	40	"	14'-6"
0650	40	40	"	5'-0"
420	50	50	1½"	2'-0"
b13	64	64	1¼"	15'-6"
b17	4	4	1"	33'-0"
C4	36	36	½"	10'-0"
d5	8	8	1"	15'-0"
d6	8	8	"	8'-9"
d7	9	9	"	19'-0"
d8	8	8	⅝"	6'-0"
U64	12	12	⅝"	8'-9"
U65	52	32	⅝"	6'-3"
U66	28	18	"	5'-0"
U67	8	8	"	6'-9"
U68	10	10	"	7'-0"
U69	20	20	⅝"	10'-0"
V6	12	12	⅝"	8'-9"
V7	22	12	¾"	6'-3"
l9	20	20	¾"	4'-6"

Item	Unit	Pier 24	Pier 27
Reinforcement Bars	Lbs.	10500	9970
Class X Concrete	Cu.Yds.	230.8	225.
Seal Coat Concrete	Cu.Yds.	67.1	67.1
Furnishing Steel Piles	Lbs.	61320	61320
Pile Caps & Points	Lbs.	2200	2200
Driving Steel Piles	Lin. Ft.	1440	1440
Driving Steel Test Piles	Each	2	2
Cofferdam	Each	one	one
Class B Excavation	Cu.Yds.	397	414

Subsoil conditions shown for Pier 24 are as interpolated between borings taken at Sta. 242+00 and Sta. 243+02, for Pier 27, as interpolated between borings taken at Sta. 244+99 and Sta. 245+45.
All piles are 10"-42# Steel bearing piles driven to refusal in underlying shale.
Estimated length of piles = 40 ft. at Pier 24.
" " " = 40 ft. " " 27.



PIER No 24 PIER No 27

SCALE 1"-20'-0"

STANDARD	COMPUTED	J.A. Fraser	
	CHECKED	G.L. Romes	
	DRAWN	J.A.F. F.E. McNuor	
	CHECKED	G.L.R.	
SPECIAL	ASSEMBLED		
	CHECKED		

EXAMINED 12-15-1939
H.F. Bureh BRIDGE ENGINEER
PASSED ENGINEER OF DESIGN
APPROVED CHIEF HIGHWAY ENGINEER

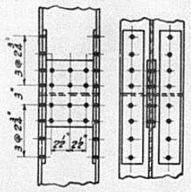
See Sh. No 30 for Bent Bar Del's
See Sh. No 27 for Pile Caps, Points & Splices

PIERS 24 & 27
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172. SECTION 15-B
PEORIA - TAZEWELL COUNTIES

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

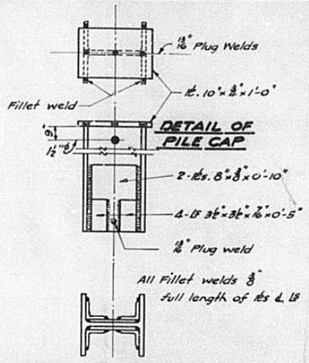
ROAD SYSTEM ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 B	Peoria Tazewell	31	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: 609-A		

SHEET NO. 27.
30 SHEETS



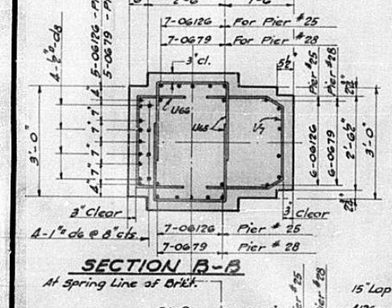
DETAIL OF BOLTED EMERGENCY SPLICE FOR 10"-42# STEEL PILE

2-lfs. 7/8" x 8" x 0'-11" } 15/16" Open Holes
4-lfs. 3/8" x 8" x 1'-10" } 7/8" Bolts
For DETAIL OF WELDED SPLICE See Sheet N318.

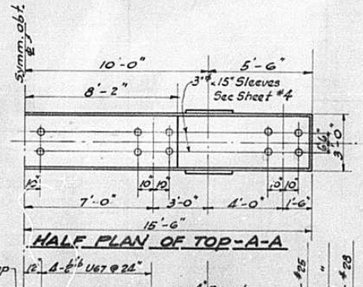


DETAIL OF PILE CAP

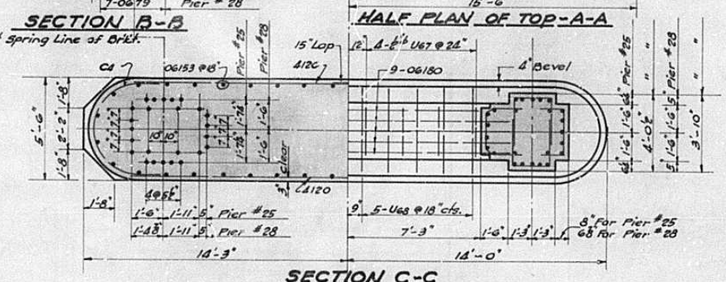
DETAIL OF PILE POINT
For 10"-42# Pile



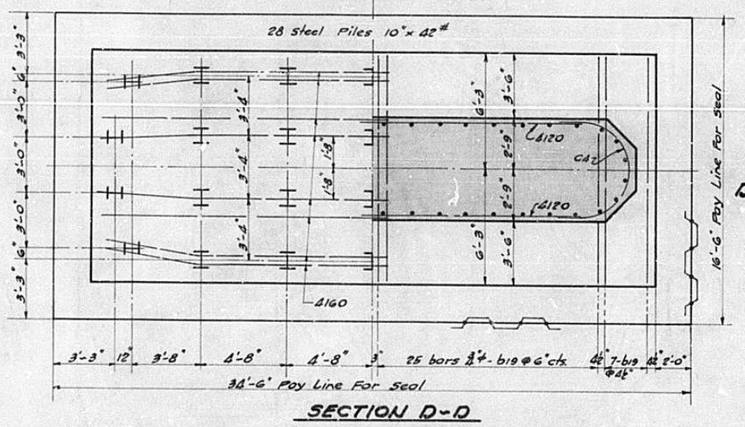
SECTION B-B
At Spring Line of Brkt.



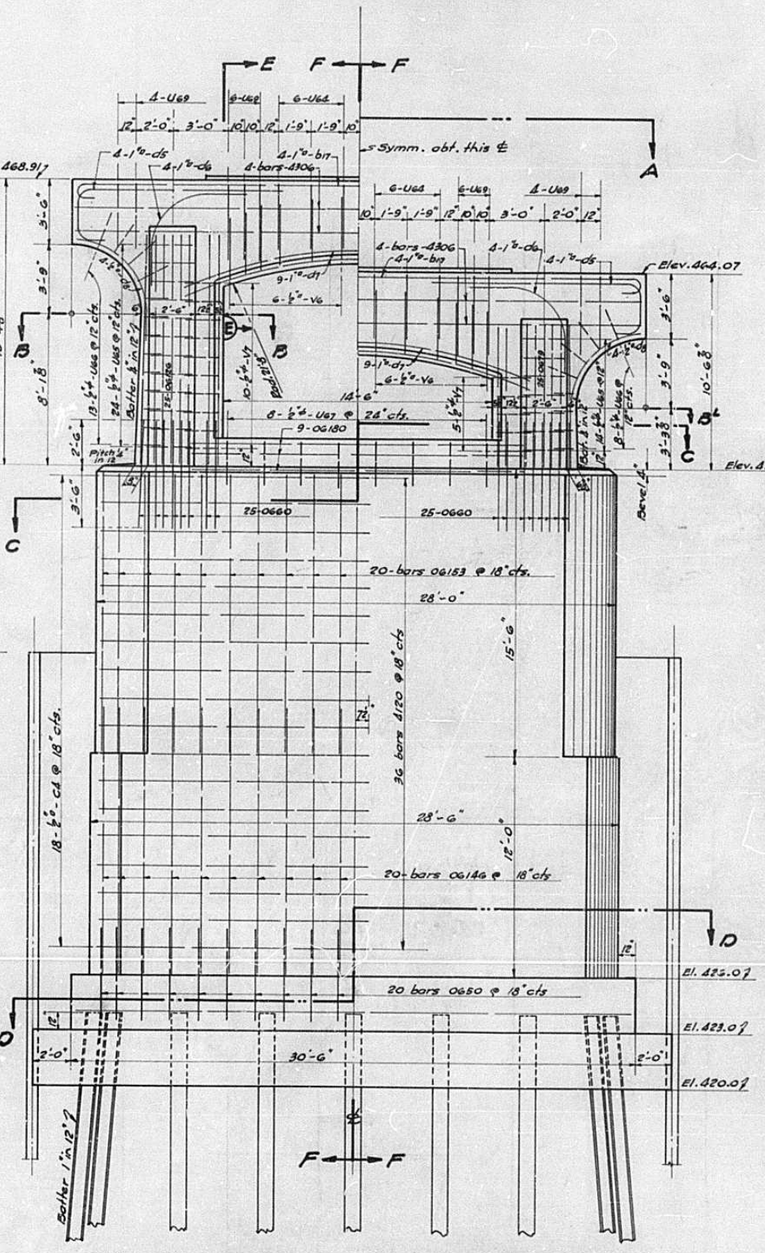
HALF PLAN OF TOP-A-A



SECTION C-C



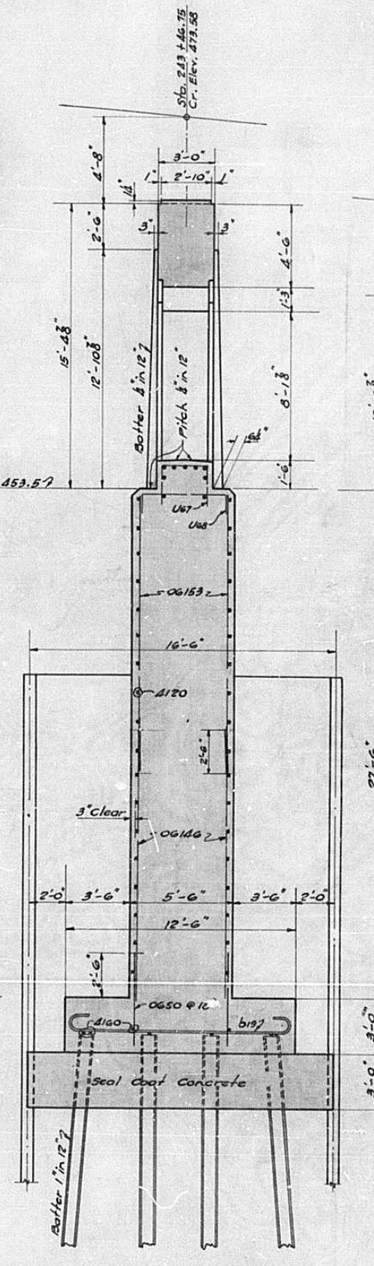
SECTION D-D



ONE HALF ELEVATION PIER Nº 25

ONE HALF ELEVATION PIER Nº 28

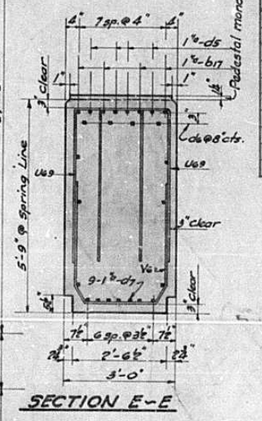
Piers #25 & #28 are similar except as shown and noted.



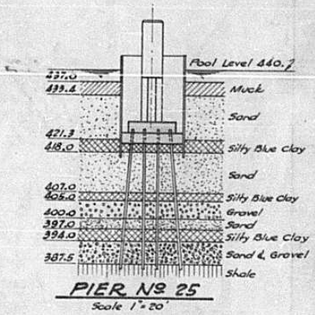
SECTION F-F PIER Nº 25

SECTION F-F PIER Nº 28
Same as Pier Nº 25 below El. 453.50

For details of bent bars See Sheet Nº 30



SECTION E-E



PIER Nº 25
Scale 1"=20'

See Sheet Nº 28 for Boring Data on Pier Nº 28.

Subsoil condition shown are as indicated by a test boring taken at Sta. 243+50.
All piles are 10"-42# driven to refusal in underlying shale.
Estimated length of piles : 41 ft. of Pier 25.
" " : 41 ft. " " 28.
28-Piles required at each pier.

BILL OF MATERIAL

REINFORCEMENT BARS

Mark	Number Pier #25	Number Pier #28	Size	Length
4306	4	4	1 3/4"	30'-6"
4120	72	72	"	12'-0"
4160	16	16	"	16'-0"
06126	50		3/4"	12'-6"
0679		50	"	7'-9"
0660	50	50	"	6'-0"
06180	9	9	"	18'-0"
06153	40	40	"	15'-3"
06146	40	40	"	12'-6"
0650	40	40	"	5'-0"
b17	4	4	1"	33'-0"
b19	64	64	3/4"	14'-3"
c4	36	36	1/2"	10'-0"
d5	8	8	1"	15'-0"
d6	8	8	"	8'-9"
d7	9	9	"	19'-0"
d8	8	8	1/2"	6'-0"
U66	12	12	1/2"	8'-9"
U65	48	28	3/4"	6'-3"
U66	26	16	"	5'-0"
U67	8	8	"	5'-9"
U68	10	10	"	7'-0"
U69	20	20	1"	10'-0"
V6	12	12	1/2"	8'-9"
V7	20	10	3/4"	6'-3"

Item	Unit	Pier 25	Pier 28
Reinforcement Bars	Lbs.	8970	8460
Class X Concrete	Cu.Yds.	225.5	219.8
Seal Coat Concrete	Cu.Yds.	63.3	63.3
Furnishing Steel Piles	Lbs.	47880	47880
Pile Caps & Points	Lbs.	1708	1708
Driving Steel Piles	Lin. Ft.	1120	1120
Driving Steel Test Piles	Each	2	2
Cofferdam	Each	1	1
Class B Excavation	Cu. Yds.	360	422

STANDARD	COMPUTED	J.A. Fraser
	CHECKED	G.L. Ramm
	DRAWN	J.A.F. F.R. Michuda
	CHECKED	G.L.R.
SPECIAL	ASSEMBLED	
	CHECKED	

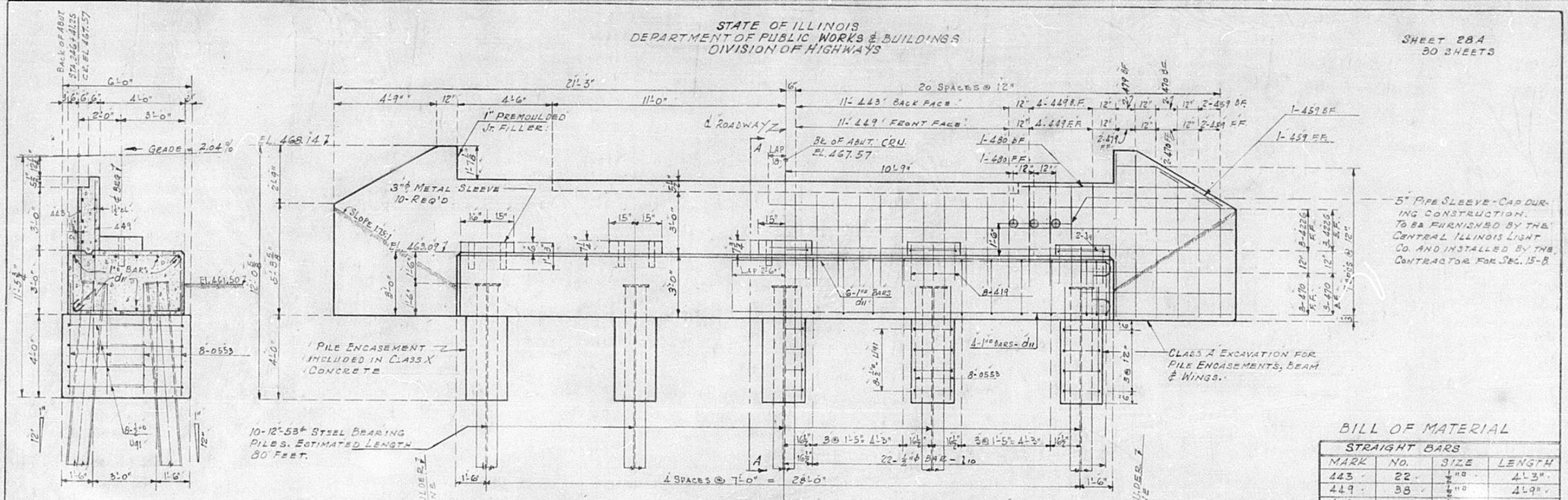
EXAMINED 12-15-1939
H.F. Bennett BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

PIERS 25 & 28
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172. SECTION 15-B
PEORIA – TAZEWELL COUNTIES

MAY 16 1941

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

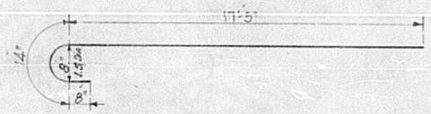
SHEET 28A
30 SHEETS



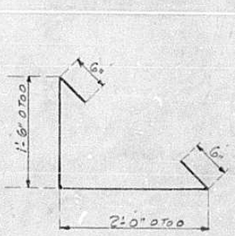
SECTION A-A

DIMENSIONS ELEVATION REINFORCEMENT

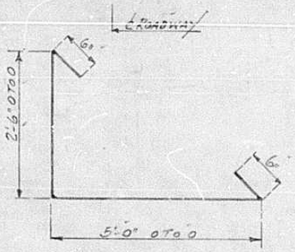
DIMENSIONS PLAN REINFORCEMENT



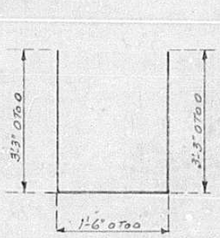
DETAIL BAR - d11



DETAIL BAR 29



DETAIL BAR 210



DETAIL BAR-U91

BILL OF MATERIAL

STRAIGHT BARS			
MARK	NO.	SIZE	LENGTH
443	22	1" □	4'-3"
449	38	1" □	4'-9"
479	8	1" □	7'-9"
470	20	1" □	7'-0"
459	12	1" □	5'-9"
480	2	1" □	8'-0"
4226	12	1" □	22'-6"
419	20	1" □	14'-9"
0553	20	½" ø	5'-3"

BENT BARS			
d11	20	1" □	19'-3"
29	10	¾" ø	4'-6"
210	44	¾" ø	8'-6"
U91	40	¾" ø	8'-0"

CLASS X CONCRETE ——— CU.YDS.	35.1
REINFORCEMENT BARS ——— LBS.	2,860
FURNISHING STEEL PILES — LBS.	42,400
DRIVING STEEL PILES - LIN. FT.	800
PILE CAPS & POINTS ——— LBS.	2,640
SLOPE WALL ——— SQ.YDS.	570
EARTH EXCAVATION ——— CU.YDS.	4,700
COMP. BY WATER SOAKING - CU.YDS.	3920
CLASS A EXCAVATION - CU.YDS.	30

STANDARD	COMPUTED	R.L. Peterson
	CHECKED	A.L. Thomas
	DRAWN	R.L. Peterson
	CHECKED	A.L. Thomas
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-15-1941
H.T. Bruch
BRIDGE ENG.

PASSED H.E. Sullivan
ENG. OF LAND ENGINEERING

APPROVED Ernest Silliman
CHIEF HIGHWAY ENG.

NOTES

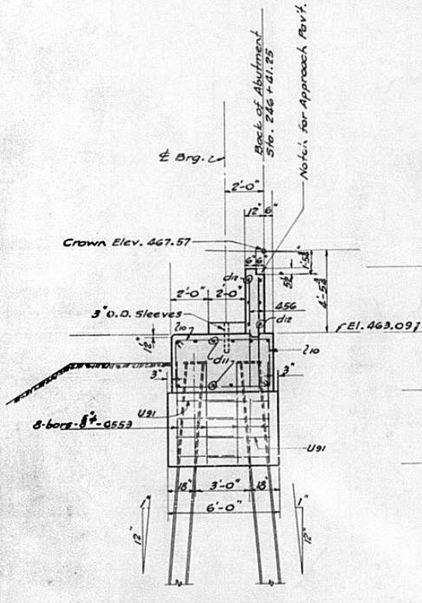
FOR DETAIL OF PILE CAP AND POINTS SEE SHEET #13 OF ORIGINAL PLANS.
FOR DETAIL OF 3½" METAL SLEEVE SEE SHEET #4 OF ORIGINAL PLANS.
FOR DETAILS OF EMBANKMENT, SLOPE WALL, CORE LOG AND PILE SPLICE SEE SHEET #28 OF ORIGINAL PLANS.
PRE MOULDED JT. FILLER SHALL CONFORM TO ARTS 105.65 TO 105.69 INCL. OF THE SUPPLEMENTAL SPECIFICATIONS.

SUPPLEMENTAL SHEET FOR
ABUTMENT NO. 4
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. ROUTE 172 - SECTION-15-B
PEORIA-TAZEWELL COUNTIES

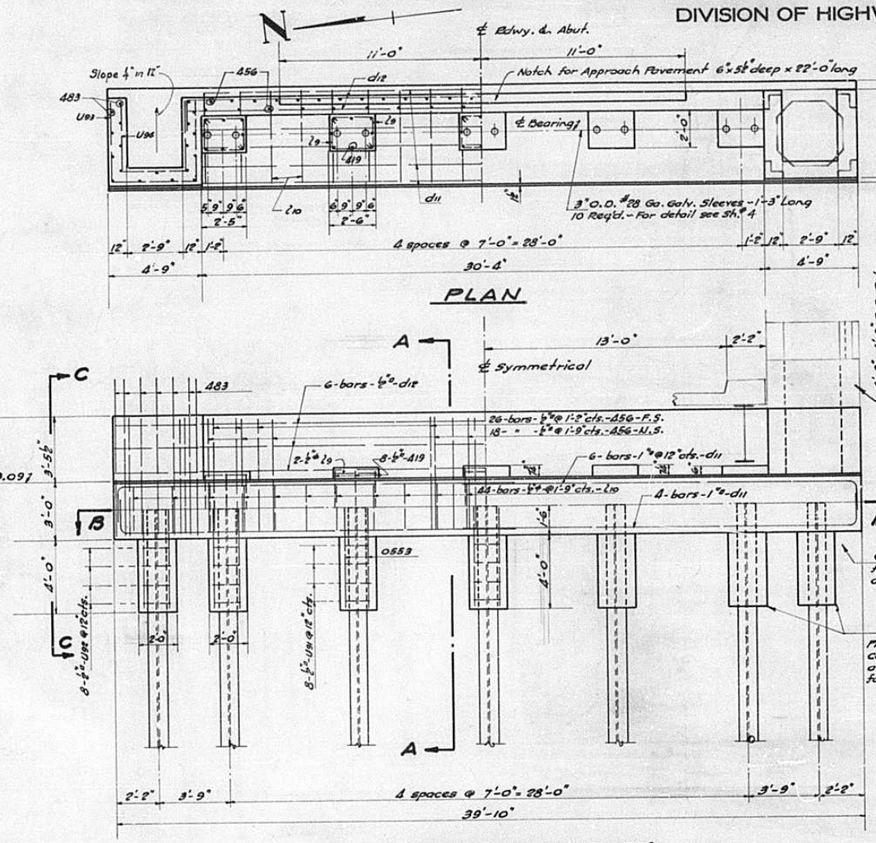
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609-A		

SHEET NO. 28
30 SHEETS



SECTION A-A

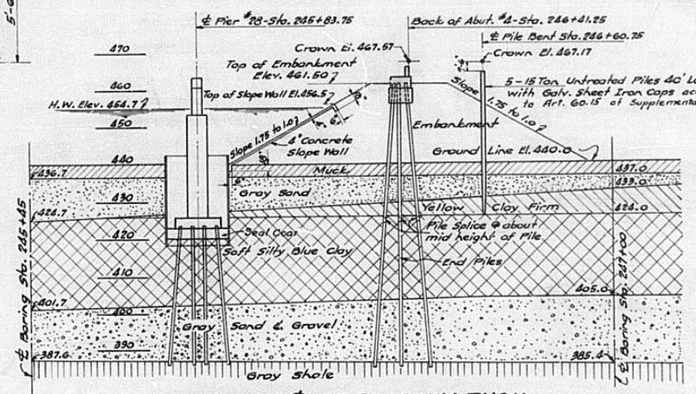


ELEVATION - ABUTMENT Nº 4
LOOKING EAST

4'-9" d-9" Rods supplied in Contract for Section B.

Class "A" Excavation for Pile Encasements and Cap.

Encasement around Tops of Piles is included in Class "X" Concrete and shall be paid for at Contract Unit price per cu. yd. for Class "X" Concrete.



SECTION ON ℄ OF ROADWAY THRU ABUTMENT Nº 4 & PIER Nº 28

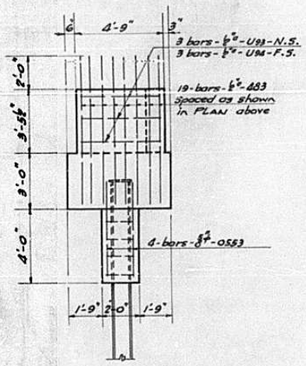
Sub soil conditions shown above are as indicated by test borings taken of the intersection of the center line of the roadway and Stations 245+45 & 247+00. Steel bearing piles shall be driven to refusal in shale.

Note - For Construction Sequence of Embankment, Abutment #4, and Pier #28 See special provisions.

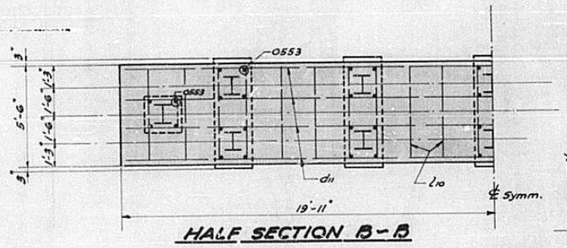
BILL OF MATERIAL - ABUTMENT Nº 4

Mark	No.	Size	Length	
483	38	¾"Ø	8'-3"	Straight Bars
456	44	"	5'-6"	
0553	48	⅝"Ø	5'-3"	
419	40	¾"Ø	1'-9"	
d12	12	¾"Ø	18'-9"	Bent Bars
d11	20	1"Ø	23'-6"	
U91	40	¾"Ø	8'-0"	
l10	44	¾"Ø	8'-6"	
U92	16	¾"Ø	4'-0"	
U93	6	"	12'-9"	
U94	6	"	11'-0"	
l9	10	¾"Ø	4'-6"	

Reinforcement Bars	Lbs.	3310
Class "X" Concrete	Cu. Yds.	42.0
Furnishing Steel Piles	Lbs.	50880
Pile Caps & Points	Lbs.	3170
Driving Steel Piles	Lin. Ft.	960
Untreated Timber Piles - 40' lg.	Lin. Ft.	200
Earth Excavation	Cu. Yds.	4700
Compaction by Water Soaking	Cu. Yds.	3920
Slope Wall	Sq. Yds.	570
Class "A" Excavation	Cu. Yds.	75

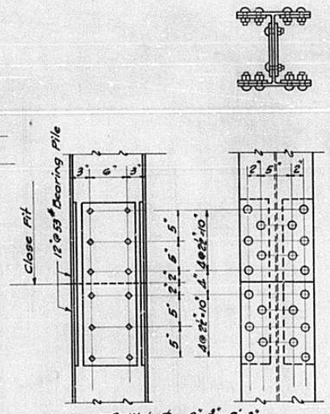


END ELEVATION C-C



HALF SECTION B-B

12"@ 53# Steel Bearing Piles
12 Reqd. Est. Length = 80'
For Pile Cap & Point Details see Sheet Nº 18.

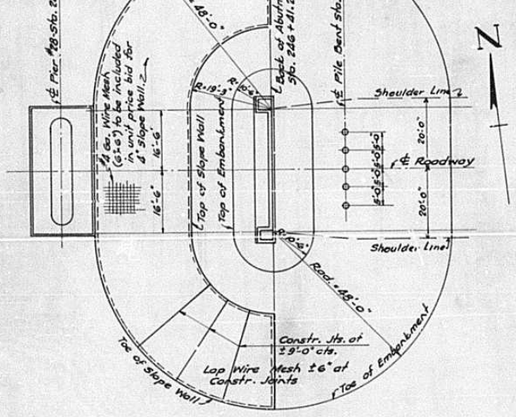


2-Web Plts. 9"x⅜"x 2'-3"
4-Flg. Plts. 5"x⅝"x 2'-3"
40-Rib Bolts ¾"Ø x 2½" Long
12- " " ¾"Ø x 2⅜" Long
with Hex. Nuts. See Art. 51.6(19) of the Supplemental specs.

Note - Splices shall be made in FIELD. All material shall be shipped Loose.

TYPICAL SPLICE FOR PILES IN EAST ABUTMENT

Holes for ¾" bolts shall be sub-punched ¼" and reamed to 13/16" in shop after assembly. Weight of splices is included in the weight of Pile caps and points. See special provisions.



PLAN OF EMBANKMENT & SLOPE WALL AT ABUTMENT Nº 4

For Details of Bent Bars see Sheet Nº 30.

STANDARD	COMPUTED	W.B. Kennedy	
	CHECKED	P. Miedema	
	DRAWN	W.B.K. F.R. Michuda	
	CHECKED	P.M.	
SPECIAL	ASSEMBLED		
	CHECKED		

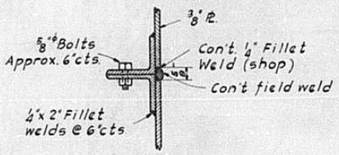
EXAMINED 12-15-1939
H. T. Burnett BRIDGE ENGINEER
PASSED W. C. Zimmerman ENGINEER OF DESIGN
APPROVED Earl Lakemann CHIEF HIGHWAY ENGINEER

ABUTMENT NO. 4
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
FA. ROUTE 172. SECTION 15-B
PEORIA - TAZEWELL COUNTIES

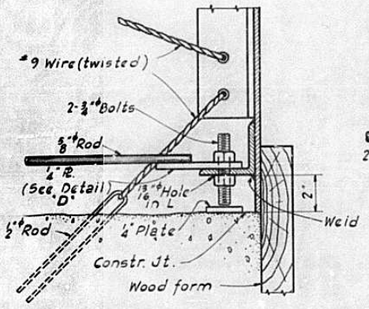
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD SYSTEM ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15B	Peoria Tazewell	31	30
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609-A		

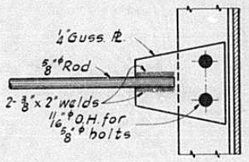
SHEET NO. 29
30 SHEETS



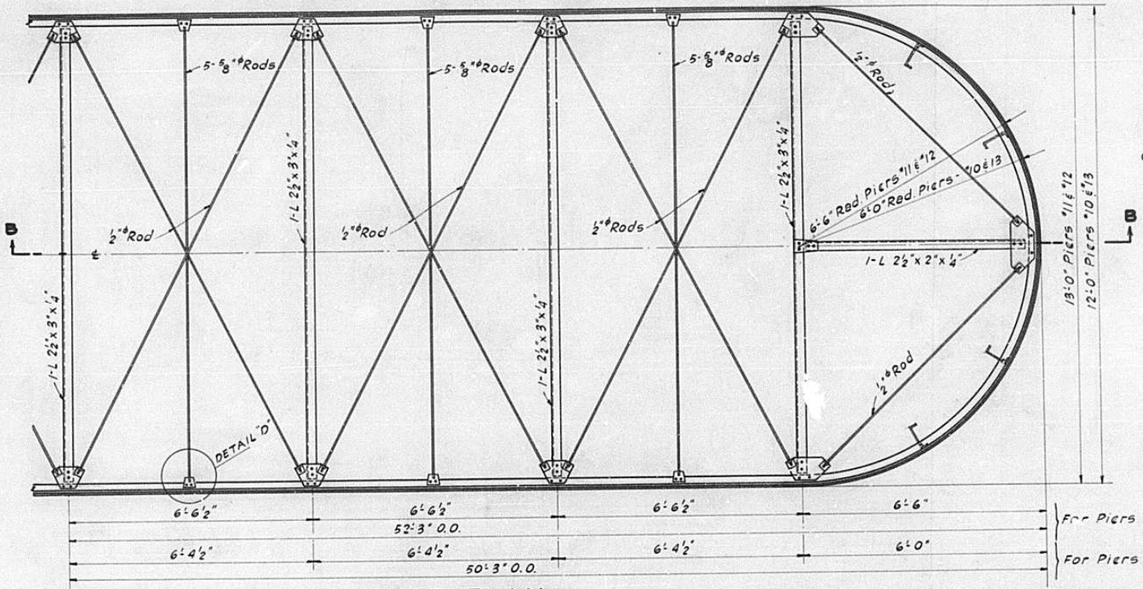
SECTION EE



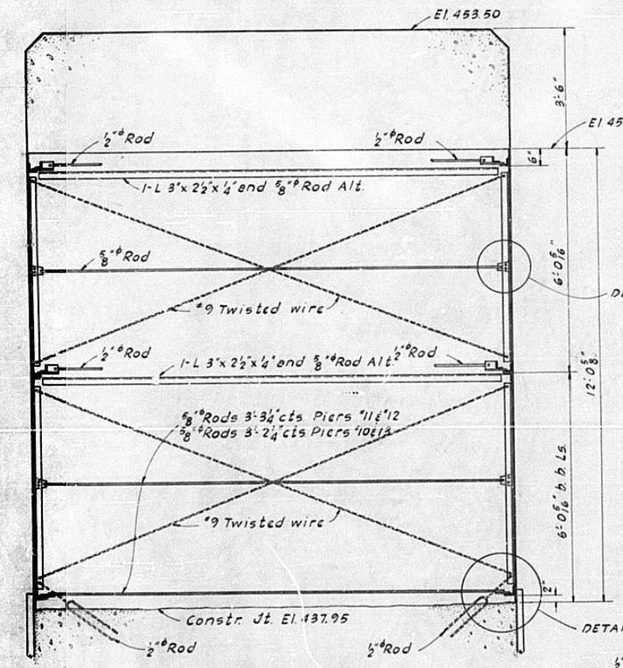
DETAIL C



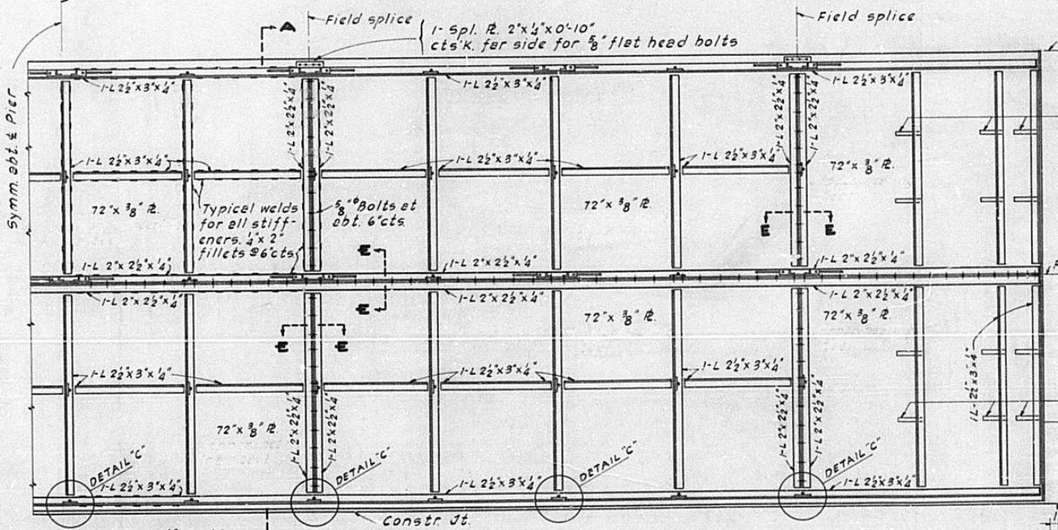
DETAIL D



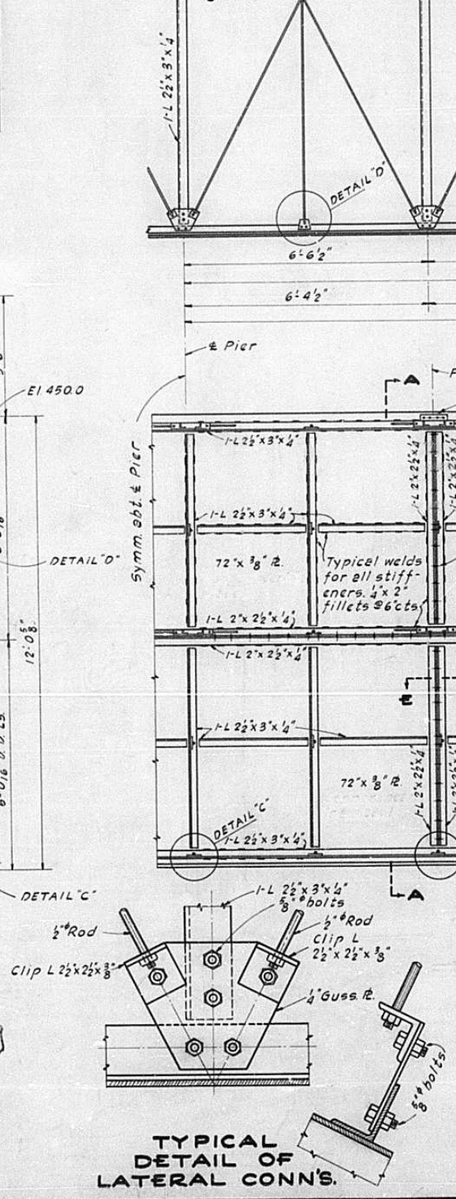
HALF PLAN



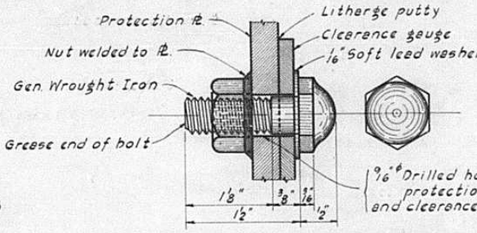
SECTION AA



SECTION BB

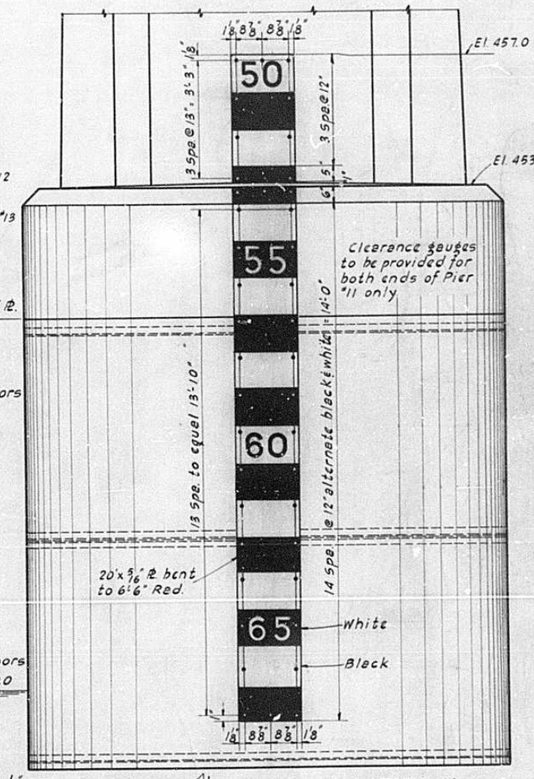


TYPICAL DETAIL OF LATERAL CONN'S.

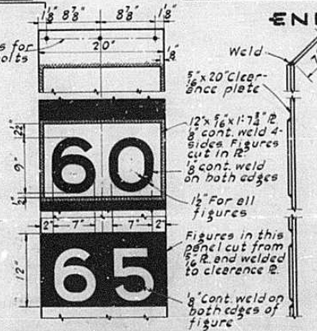


FULL SIZE DETAIL FOR GAUGE FASTENING TO PROTECTION PL.

Detail is similar for attaching gauge to concrete. Use Ackerman Johnson Expansion Screw Anchors or equal.



END ELEVATION PIER 11



TOTAL BILL OF MATERIAL

Pier "10 Structural Steel	28800 Lbs.
Pier "11 Structural Steel	31300 Lbs.
Pier "12 Structural Steel	30100 Lbs.
Pier "13 Structural Steel	28800 Lbs.
Total	119000 Lbs.

GENERAL NOTES

72"x ⅜ Plates and plates for Clearance Gauges shall be Genuine Wrought Iron A.S.T.M. Spec. A-42-37-T. All other material shall be structural steel.

In Filling, Surfaces of concrete to be level at all times. Rate of pouring not to exceed 1.5 ft. of vertical height per hour.

Paint, All metal in contact with concrete unpainted. Exterior surface to be thoroughly sandblasted and painted as described in Special Provisions.

Weight of wrought iron plate included with other steel in item, "Structural Steel." Provide clearance gauges for both ends of Pier "11. Plates 20'x ⅝" to be bent to radius of pier. If lower gauge is made in sections, provide 3-bolts at each end of each section.

STANDARD	COMPUTED	Edw. J. Dahlin
	CHECKED	R.C. Murphy
	DRAWN	Edw. J. Dahlin
	CHECKED	R.H.M. PIERSON
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 12-15-1939
A. F. Burch
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

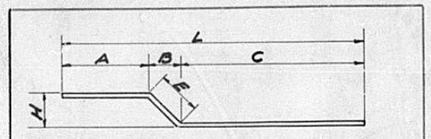
PIER PROTECTION PLATES
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F. A. ROUTE 172, SECTION 15-B
PEORIA-TAZEWELL COUNTIES

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

ROAD SYSTEM	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15-B	Peoria Tazewell	31	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609-A		

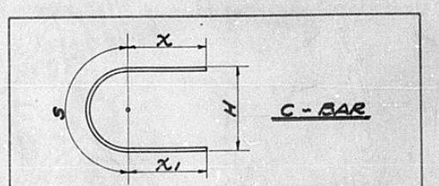
SHEET NO. 30
30 SHEETS

a - BAR



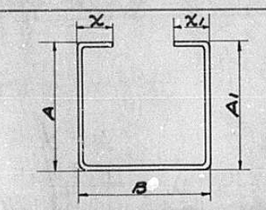
Mark	Size	Length	A	B	C	E	H	L	Location
a1	1#	12'-3	4'-3	4'-0	3'-9	4'-3	1'-7	12'-0	Pier 12

c - BAR



Mark	Size	Length	X	S	X1	H	R	Location
c1	⅝°	25'-6	3'-0	19'-6	3'-0	12'-6	6'-2½	Piers 11, 12
c2	⅝°	22'-0	2'-0	18'-0	2'-0	11'-6	5'-8½	Piers 10, 13
c3	⅝°	15'-0	2'-0½	10'-11	2'-0½	7'-0	3'-5½	Piers 5,6,8,9,14,15
c4	⅝°	10'-0	1'-1½	7'-9½	1'-1½	5'-0	2'-5½	Piers 17-28 incl.
c5	⅝°	10'-0	1'-11½	6'-1	1'-11½	3'-11	1'-11	Piers 3, 4
c6	⅝°	15'-9	2'-0½	11'-8	2'-0½	7'-6	3'-8½	Piers 7, 16

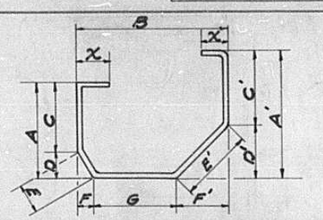
U - BAR



Mark	Size	Length	X	A	B	A1	X1	Location
U1	⅝#	7'-6	—	2'-0	3'-6	2'-0	—	Piers 11,12
U2	⅝#	6'-9	—	1'-6	3'-9	1'-6	—	" " "
U3	⅝#	17'-6	—	7'-0½	3'-5	7'-0½	—	" " "
U4	⅝#	6'-3	—	1'-0½	4'-2	1'-0½	—	" " "
U5	⅝#	6'-9	—	1'-11½	2'-10½	1'-11½	—	Piers 10,13
U6	⅝#	5'-9	—	1'-5½	2'-10½	1'-5½	—	" " "
U7	⅝#	16'-6	—	6'-9	3'-0	6'-9	—	" " "
U8	½°	6'-6	—	2'-6½	1'-6	2'-6½	—	Abut.#3 "
U9	½°	17'-6	—	8'-0½	1'-6	8'-0½	—	" "
U10	½°	16'-0	—	7'-3½	1'-6	7'-3½	—	" "
U11	½°	14'-6	—	6'-6½	1'-6	6'-6½	—	" "
U12	½°	13'-3	—	5'-11	1'-6	5'-11	—	" "
U13	½°	11'-9	—	5'-2	1'-6	5'-2	—	" "
U14	½°	10'-6	—	4'-6½	1'-6	4'-6½	—	" "
U15	½°	9'-0	—	3'-9½	1'-6	3'-9½	—	" "
U16	½°	7'-6	—	3'-0½	1'-6	3'-0½	—	" "
U17	½°	6'-3	—	2'-5	1'-6	2'-5	—	" "
U18	½°	4'-9	—	1'-8	1'-6	1'-8	—	" "
U19	½°	23'-0	—	10'-9½	1'-6	10'-9½	—	" "
U20	½°	21'-6	—	10'-0½	1'-6	10'-0½	—	" "
U21	½°	20'-0	—	9'-3½	1'-6	9'-3½	—	" "
U22	½°	18'-6	—	8'-6½	1'-6	8'-6½	—	" "
U23	½°	17'-3	—	7'-11	1'-6	7'-11	—	" "
U24	½°	15'-9	—	7'-2	1'-6	7'-2	—	" "
U25	½°	14'-3	—	6'-5	1'-6	6'-5	—	" "
U26	½°	12'-9	—	5'-8	1'-6	5'-8	—	" "
U27	½°	11'-3	—	4'-11	1'-6	4'-11	—	" "
U28	½°	9'-9	—	4'-2	1'-6	4'-2	—	" "
U29	½°	8'-3	—	3'-5	1'-6	3'-5	—	" "
U30	½°	6'-9	—	2'-8	1'-6	2'-8	—	" "
U31	½°	5'-3	—	1'-11	1'-6	1'-11	—	" "
U32	½°	26'-0	—	12'-3½	1'-6	12'-3½	—	" "
U33	½°	24'-9	—	11'-8	1'-6	11'-8	—	" "
U34	½°	23'-3	—	10'-11	1'-6	10'-11	—	" "
U35	½°	22'-0	—	10'-3½	1'-6	10'-3½	—	" "
U36	½°	20'-6	—	9'-6½	1'-6	9'-6½	—	" "
U37	½°	19'-3	—	8'-11	1'-6	8'-11	—	" "
U38	½°	17'-9	—	8'-2	1'-6	8'-2	—	" "
U39	½°	16'-6	—	7'-6½	1'-6	7'-6½	—	" "
U40	½°	15'-0	—	6'-9½	1'-6	6'-9½	—	" "

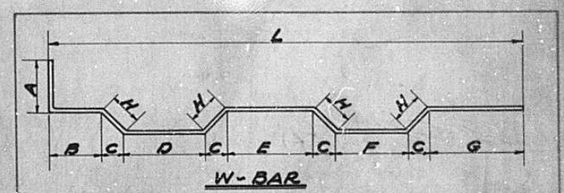
Mark	Size	Length	X	A	B	A1	X1	Location
U41	⅝#	13'-9	—	6'-2	1'-6	6'-2	—	Abut.#3
U42	⅝°	12'-9	—	5'-5	1'-6	5'-5	—	" "
U43	⅝°	11'-0	—	4'-9½	1'-6	4'-9½	—	" "
U44	⅝°	9'-6	—	4'-0½	1'-6	4'-0½	—	" "
U45	⅝°	9'-3	—	3'-11	1'-6	3'-11	—	" "
U46	⅝°	9'-0	—	3'-9½	1'-6	3'-9½	—	" "
U47	⅝°	8'-9	—	3'-8	1'-6	3'-8	—	" "
U48	⅝°	26'-3	—	12'-5	1'-6	12'-5	—	" "
U49	⅝°	24'-9	—	11'-8	1'-6	11'-8	—	" "
U50	⅝°	23'-0	—	10'-9½	1'-6	10-9½	—	" "
U51	⅝°	21'-3	—	9'-11	1'-6	9'-11	—	" "
U52	⅝°	19'-9	—	9'-2	1'-6	9'-2	—	" "
U53	⅝°	18'-0	—	8'-3½	1'-6	8'-3½	—	" "
U54	⅝°	16'-3	—	7'-5	1'-6	7'-5	—	" "
U55	⅝°	14'-9	—	6'-8	1'-6	6'-8	—	" "
U56	⅝°	13'-0	—	5'-9½	1'-6	5'-9½	—	" "
U57	⅝°	11'-3	—	4'-11	1'-6	4'-11	—	" "
U58	⅝°	9'-6	—	4'-0½	1'-6	4'-0½	—	" "
U59	⅝°	8'-0	—	3'-3½	1'-6	3'-3½	—	" "
U60	⅝°	6'-3	—	2'-5	1'-6	2'-5	—	" "
U61	⅝°	9'-6	1'-10½	1'-8½	2'-5½	1'-9½	1'-10½	" "
U62	⅝#	5'-6	—	1'-0	3'-6	1'-0	—	Piers 10, 13
U63	⅝°	13'-0	—	5'-3	2'-6	5'-3	—	Piers 5,6,7,8, 9,14,15
U64	⅝°	8'-9	—	3'-5½	1'-10	3'-5½	—	" 17,18,20,21, 22-28 incl.
U65	⅝#	6'-3	—	2'-1½	2'-0	2'-1½	—	" 16,17,18,20,21 22-28 incl.
U66	⅝#	5'-0	—	1'-3	2'-6	1'-3	—	" 17,18,20,21, 23-28 incl.
U67	⅝°	6'-9	—	2'-1½	1'-8	2'-1½	—	Piers 5,6,8,9, 14,15
U68	⅝°	7'-0	—	1'-0½	4'-11	1'-0½	—	" 17-28 incl.
U69	⅝°	8'-3	—	3'-5	1'-6	3'-5	—	" 17,18,20,21, 23-28 incl.
U70	⅝°	9'-6	—	1'-3	7'-0	1'-3	—	Piers 5,6,8,9, 14,15
U71	⅝°	6'-9	—	2'-6½	1'-8	2'-6½	—	Piers 3,4
U72	⅝#	10'-0	—	1'-3	7'-6	1'-3	—	Piers 7,16
U73	⅝#	7'-3	—	2'-9	1'-9	2'-9	—	Pier 16
U74	⅝#	7'-0	—	3'-6	1'-9	1'-9	—	" "
U75	⅝#	13'-0	6½	3'-3½	4'-5½	4'-1½	7½	" "
U76	⅝#	8'-9	—	3'-6	1'-9	3'-6	—	" "
U77	⅝#	9'-9	—	4'-0	1'-9	4'-0	—	" "
U78	⅝°	9'-0	—	3'-6	2'-0	3'-6	—	Piers 19, 22
U79	⅝#	7'-0	—	2'-6	2'-0	2'-6	—	" "
U80	⅝°	5'-3	—	1'-2½	2'-10	1'-2½	—	" "
U81	⅝#	7'-0	—	2'-1	2'-10	2'-1	—	" "
U82	⅝°	10'-3	—	4'-1½	2'-0	4'-1½	—	" "
U83	⅝#	11'-3	1'-11½	2'-4	2'-8	2'-4	1'-11½	Pier 19
U84	⅝#	8'-0	—	2'-10	2'-4	2'-10	—	Pier 22
U85	⅝#	8'-3	1'-0½	2'-6	1'-8	2'-6	1'-0½	" "
U86	⅝°	10'-0	—	4'-5½	1'-1	4'-5½	—	" "
U87	⅝#	5'-6	—	1'-3	3'-0	1'-3	—	Pier 7
U88	⅝#	9'-6	—	3'-9	2'-0	3'-9	—	" "
U89	⅞#	12'-3	—	5'-0	2'-3	5'-0	—	Piers 3,4
U90	⅝°	17'-3	—	4'-9	7'-9	4'-9	—	Pier 4
U91	⅝°	8'-0	—	3'-3	1'-6	3'-3	—	Abut.#4
U92	⅝°	4'-0	—	1'-3	1'-6	1'-3	—	" "
U93	⅝°	12'-9	—	4'-3	4'-3	4'-3	—	" "
U94	⅝°	11'-0	—	3'-10	3'-4	3'-10	—	" "

V - BAR



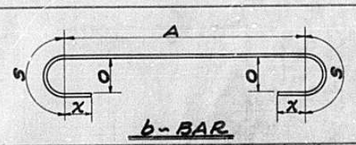
Mark	Size	Length	X	A	B	C	D	E	F	G	F'	E'	D'	C'	A'	Location
V1	⅝#	8'-6	—	2'-9	3'-6	2'-2	7	8	4	2'-10	4	8	7	2'-2	2'-9	Piers 11, 12
V2	⅝#	13'-6	—	4'-9	3'-6	4'-8	7	8	4	2'-10	4	8	7	4'-8	4'-9	" "
V3	⅝#	8'-0	—	2'-9	3'-0	2'-2	7	8	4	2'-4	4	8	7	2'-2	2'-9	Piers 10, 13
V4	⅝#	13'-6	—	5'-6	3'-0	4'-11	7	8	4	2'-4	4	8	7	4'-11	5'-6	" "
V5	⅝#	9'-6	—	2'-9	4'-7½	2'-2	7	8	4	2'-4	1'-11½	2'-9⅜	2'-0	1'-6⅛	3'-6⅛	" "
V6	⅝°	8'-9	—	3'-3½	2'-6	2'-10½	5	6	3	2'-0	3	6	5	2'-10½	3'-3½	" 17,18,20, 21,22-28 incl.
V7	⅝#	6'-3	—	2'-0½	2'-6	1'-7½	5	6	3	2'-0	3	6	5	1'-7½	2'-0½	" " "
V8	⅝#	5'-9	—	2'-2"	1'-9	1'-9"	5	6	3	1'-3"	3	6	5	1'-9"	2'-2"	Pier 16
V9	⅝#	8'-0	—	3'-3½	1'-9	2'-10½	5	6	3	1'-3"	3	6	5	2'-10½	3'-3½	" "
V10	½°	9'-0	—	3'-3	2'-10	2'-10	5	6	3	2'-6	3	6	5	2'-10	3'-3	Piers 19, 22
V11	⅝#	6'-6	—	2'-0	2'-10	1'-7	5	6	3	2'-6	3	6	5	1'-7	2'-0	" "
V12	⅝°	7'-0	—	2'-8	2'-0	2'-3	5	6	3	1'-6	3	6	5	2'-3	2'-8	Pier 7
V13	⅝#	5'-6	—	1'-11	2'-0	1'-6	5	6	3	1'-6	3	6	5	1'-6	1'-11	" "

W - BAR



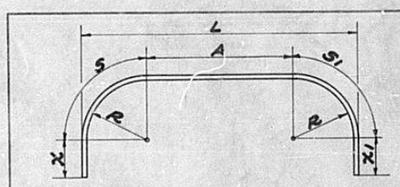
Mark	Size	Length	A	B	C	D	E	F	G	H	L	Location
W1	1#	39'-9	—	8'-8½	8	7'-2	5'-7	6'-9	7'-9½	1⅛	38'-8	Abut.#3
W2	⅞#	39'-9	—	8'-8½	8	7'-2	5'-6½	6'-9	7'-9½	1⅛	38'-8	" "
W3	⅞#	31'-10	—	6'-9⅜	8	5'-1	3'-8½	5'-1	6'-6⅜	1⅛	29'-11	" "
W4	½°	31'-3	—	6'-9⅜	8	5'-1	3'-8	5'-1	6'-6⅜	1'-0	30'-1	" "
W5	⅞#	35'-9	—	7'-8½	8	6'-7½	5'-3½	6'-7½	7'-8⅜	1⅛	35'-2½	" "
W6	⅞#	35'-9	—	7'-8½	8	6'-7½	5'-3	6'-7½	7'-8½	1⅛	35'-2½	" "
W7	⅞#	34'-6	—	8'-4	8	6'-11½	5'-9	6'-11½	8'-0½	1⅛	33'-9	" "
W8	⅞#	34'-6	—	8'-4	8	6'-11½	5'-9	6'-11½	8'-0½	1⅛	33'-8	" "
W9	⅞#	33'-6	—	8'-11	8	6'-11½	5'-9	6'-11½	8'-0½	1⅛	32'-7	" "
W10	½°	33'-6	—	8'-11	8	6'-11½	5'-9	6'-11½	8'-0½	1⅛	32'-7	" "
W11	½°	5'-0	—	2'-0	8	3'-0	—	—	—	—	3'-0	" "

b - BAR



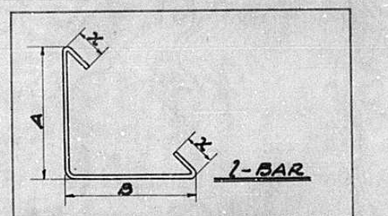
Mark	Size	Length	X	S	A	S	X	O	L	Location
b1	18°	29'-3	8	1'-6	26'-11	1'-6	8	10	25-11½	Pier 12
b2	1°	22'-6	"	1'-2	19'-2	1'-2	6	8	20-0	Pier 10 & 13
b3	1°	17'-0	6	1'-2	13'-8	1'-2	6	8	18'-6	" " "
b4	18°	8'-3	8	1'-6	6'-3	—	—	9	6'-8½	Abutment 3
b5	18°	20'-9	8	1'-6	18'-9	—	—	9	19'-8½	" "
b6	1°	22'-0	6	1'-2	20'-6	—	—	8	20'-9	" "
b7	18°	17'-6	8	1'-6	15'-6	—	—	9	15-11½	" "
b8	1#	32'-9	7½	1'-2	29'-2	1'-2	7½	8	30'-0	" "
b9	1#	35'-3	7½	1'-2	31'-8	1'-2	7½	8	32'-6	" "
b10	18°	24'-3	8	1'-6	19'-11	1'-6	8	10	20-11½	Pier 11
b11	18°	20'-0	9	1'-6	15'-6	1'-6	9	10	16'-6½	Pier 14
b12	1#	19'-6	6	1'-2	16'-2	1'-2	6	8	17'-0	Pier 15
b13	1#	15'-6	6	1'-2	12'-2	1'-2	6	8	13'-0	Piers 17,18,20, 22,24-27
b14	⅝°	4'-6	4	7	3'-7	—	—	4	3-9½	Pier 3,4
b15	⅞#	13'-3	6½	11	10-6½	11	6½	6	11'-0	Pier 6, 8
b16	1#	18'-0	6	1'-2	14'-8	1'-2	6	8	15'-6	Pier 5
b17	1°	33'-0	6	1'-2	29'-8	1'-2	6	8	30'-6	Piers 15-28 incl.
b18	1°	16'-6	6	1'-2	13'-2	1'-2	6	8	14'-0	Pier 9, 18, 21
b19	⅞#	12'-3	6½	11	11-4½	11	6½	6	12'-0	Pier-23,25,26,28
b20	18°	8'-3	7½	1'-6	6'-1½	—	—	10	6'-8	Abutment 3
b21	1°	8'-0	7	1'-2	6'-3	—	—	8	6'-8	" "
b22	18°	8'-3	8½	1'-6	6'-2½	—	—	9	6'-8½	" "
b23	1#	18'-6	6	1'-2	15'-2	1'-2	6	8	16'-0	Pier 16
b24	⅞#	13'-9	6½	11	11-10½	11	6½	6	12'-6	Pier 7
b25	1#	10'-3	6	1'-2	10'-11	1'-2	6	8	11'-0	Pier 3
b26	⅞#	7'-3	6	11	5'-10	—	—	6	6'-1½	Pier 4
b27	⅞#	12'-0	6½	11	9'-1½	11	6½	5	9'-9	Pier 4

d - BAR



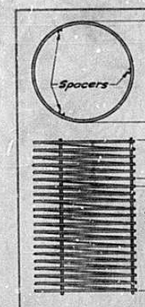
Mark	Size	Length	X	S	A	S1	X1	L	R	Location
d1	1°	27'-9	6	15'-9	11'-6	—	—	21'-7	10'-0	Piers 10,13
d2	1°	33'-0	6'-6	22'-0	5'-6	—	—	26'-3	20'-8	Piers 11, 12
d3	1°	28'-9	6	15'-9	12'-6	—	—	22'-7	10'-0	Piers 11, 12
d4	1°	33'-0	—	16'-6	—	16'-6	—	—	19'-9	Piers 10, 13
d5	1°	15'-0	11'-2	7	2'-2	7	6	3'-0	4	Piers 16-28 incl.
d6	1°	8'-9	2'-0	4'-9	2'-0	—	—	5'-1	3'-0	" " " "
d7	1°	19'-0	—	9'-6	—	9'-6	—	—	22'-0	" " " "
d8	½°	6'-0	—	6'-0	—	—	—	4'-02	4'-0	" " " "
d9	1°	18'-6	6	10'-3	7'-9	—	—	14'-4	6'-6	Pier 7
d10	1°	21'-0	—	10'-6	—	10'-6	—	—	15'-4	Pier 7
d11	1°	23'-6	2'-0	7	20'-11	—	—	21'-4	4	Abut.#4
d12	½°	18'-9	2'-0	3½	16'-5½	—	—	16'-9	2	" "

L - BAR



Mark	Size	Length	X	A	B	X	Location
l1	⅝#	15'-9	4½	7'-6	7'-6	4½	Piers 11, 12
l2	⅝#	14'-3	7½	6'-6	6'-6	7½	Piers 10, 13
l3	⅝#	12'-0	7½	6'-7½	4'-9	—	" " "
l4	⅝#	12'-6	7½	6'-6	7'-4½	—	" " "
l5	⅝#	12'-0	6	5'-6	5'-6	6	" 5-9 incl. 14,15
l6	⅝#	7'-6	—	8	6'-10	—	Piers 11, 12
l7	⅝#	7'-0	—	9	6'-3	—	Piers 10, 13
l8	⅝#	5'-6	4½	2'-6½	2'-6½	4½	Pier 18, 21
l9	⅝#	4'-6	6	1'-6	2'-0	6	Piers 26,27 Abut.#4
l10	⅝#	8'-6	6	2'-6	5'-0	6	Abut.#4

S - BAR SPIRAL



One extra turn each at top and bottom.

Use 3 spacers for each spiral.

Mark	Size	Length	D	L	P	Location
S1	⅜#	440'-0	6'-0	5'-08	3	Piers 10 & 13
S2	⅜#	510'-0	7'-0	5'-08	3	Piers 11 & 12

Identification Numbers for Straight Bars
First number is size of bar in eighths, the second or second & third numbers are feet, the last number is inches. If first number is preceded by zero, the bar is round.
Examples: 04280 .8233 0653
⅜" × 28'-0" ⅛" × 23'-3" ⅝" × 5'-3"

Note:-
Dimensions not given are zero.
Dimension "S" given for center line of bar.

STANDARD	COMPUTED	F.A.C.-J.A.B.-R.M.-R.S.M.-R.N.H. A.S.M.
	CHECKED	A. L. Homer.
	DRAWN	R.S.Murphy F.B.McNeely
	CHECKED	A.L.H.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 12-15-1939
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

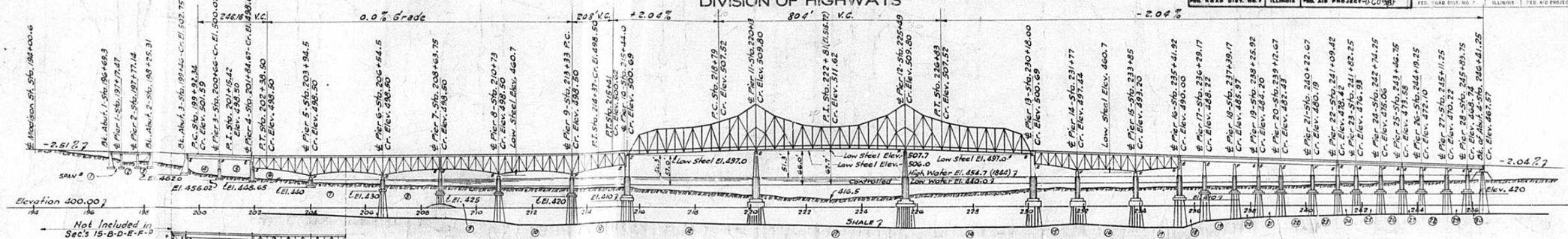
BENT BAR DETAILS
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172. SECTION 15-B
PEORIA - TAZEWELL COUNTIES

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

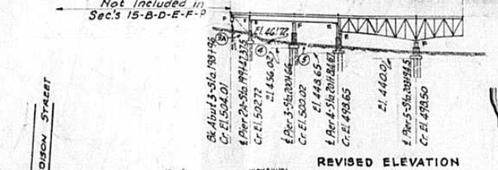
BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15L	Peoria-Tazewell	15	2
	15P		3	2
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-609A		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15-D	Peoria-Tazewell	44	2
	15B	Peoria	31	2
	15F	Tazewell	94	32
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-609A		

SHEET NO. 1
30 SHEETS Sec. B
70 Sec. D-E-L F-P

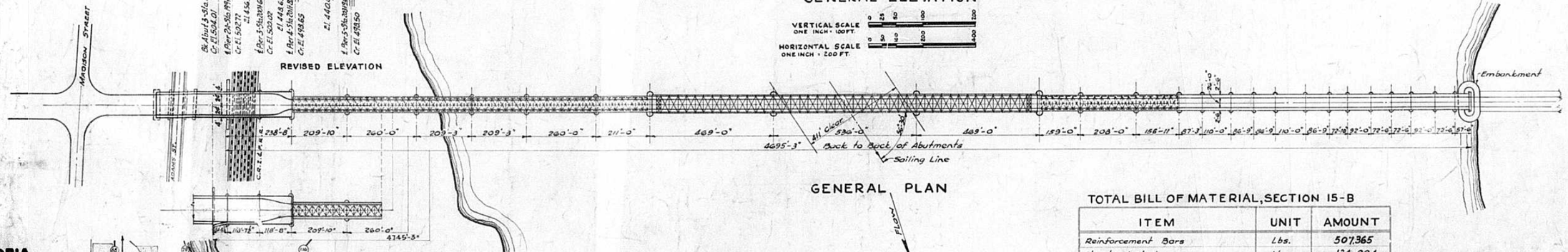


Not Included in Sec's 15-B-D-E-F-L-P

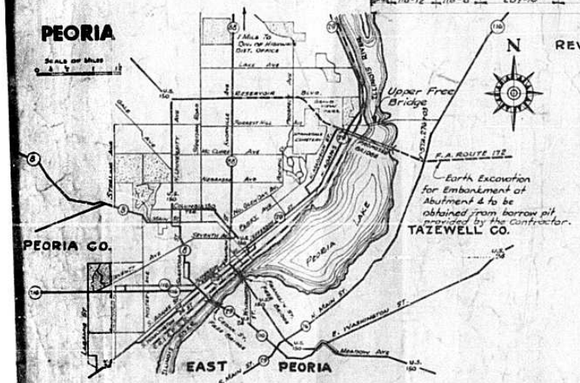


GENERAL ELEVATION

VERTICAL SCALE ONE INCH = 100 FT.
HORIZONTAL SCALE ONE INCH = 200 FT.



GENERAL PLAN



LOCATION MAP

SUPERSTRUCTURE TOTAL BILL OF MATERIAL

ITEM	UNITS	SEC. 15-D	SEC. 15-E	SEC. 15-F	SEC. 15-L	SEC. 15-P
Class "X" Concrete	cu.Yds.	3943.0				
Reinforcement Bars	Lbs.	1,061,730				
Concrete Apron	Sq.Yds.	20				
Cast Iron Frames, Grates & Covers	Lbs.	4,580				
8" Wrought Iron Pipe	Lin.Ft.	277.25				
Structural Steel (Carbon)	Lbs.		6,766,670	6,766,670		
Structural Steel (Silicon)	Lbs.		3,194,570	3,194,570		
Cast Steel (Rockers & Bolsters)	Lbs.		91,950	91,950		
Open Grid Floor	Sq.Ft.		3,976	3,976		3,976
Wire Rope	Lin.Ft.		2,000	2,000		2,000
Galvanized Iron Conduit - 1½"ϕ	Lin.Ft.	9850				
" " " - 1"ϕ	Lin.Ft.	4810				
Junction Boxes - J1	Each	84				
Junction Box - J2	Each	one				
Galvanized Iron Conduit - 2"ϕ	Lin.Ft.	70				
Painting Structural Steel	Lbs.					9,957,965 *

For Bill of Material of Lighting Contract; Sec. 15-L, see sheet #69

* Final Pay Weight, computed by the Engineer, according to Art. 60.5 of the Standard Specifications.

TOTAL BILL OF MATERIAL, SECTION 15-B

ITEM	UNIT	AMOUNT
Reinforcement Bars	Lbs.	507,365
Structural Steel	Lbs.	134,004
Class "X" Concrete	Cu. Yds.	12,641.7
Seal Coat Concrete	Cu. Yds.	3811.3
Furnishing Steel Piles	Lbs.	2817.155.
Pile Caps & Points	Lbs.	105,064
Driving Steel Piles	Lin. Ft.	54,706
Driving Steel Test Piles	Each	46
Emergency Splices	Each	100
Untreated Timber Piles - 40' long	Lin. Ft.	200
Class "A" Excavation	Cu. Yds.	2935
Class "B" Excavation	Cu. Yds.	14,984
Earth Excavation	Cu. Yds.	4,700
Compaction by Water Soaking	Cu. Yds.	3,920
Concrete Slope Wall	Sq. Yds.	570
Cofferdam at Pier No 6	Each	One
" " " " 7	"	"
" " " " 8	"	"
" " " " 9	"	"
" " " " 10	"	"
" " " " 11	"	"
" " " " 12	"	"
" " " " 13	"	"
" " " " 14	"	"
" " " " 15	"	"
" " " " 16	"	"
" " " " 17	"	"
" " " " 18	"	"
" " " " 19	"	"
" " " " 20	"	"
" " " " 21	"	"
" " " " 22	"	"
" " " " 23	"	"
" " " " 24	"	"
" " " " 25	"	"
" " " " 26	"	"
" " " " 27	"	"
" " " " 28	"	"

STANDARD	COMPUTED	F.A.Cy P.M.
	CHECKED	A.L. Homes
	DRAWN	F.A.C. F.C. Michuda
	CHECKED	A.L.T.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 12-15-1939
H. F. Bruce BRIDGE ENGINEER
PASSED [signature] ENGINEER OF DESIGN
APPROVED [signature] CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46
W. W. Pash CHIEF HIGHWAY ENGINEER

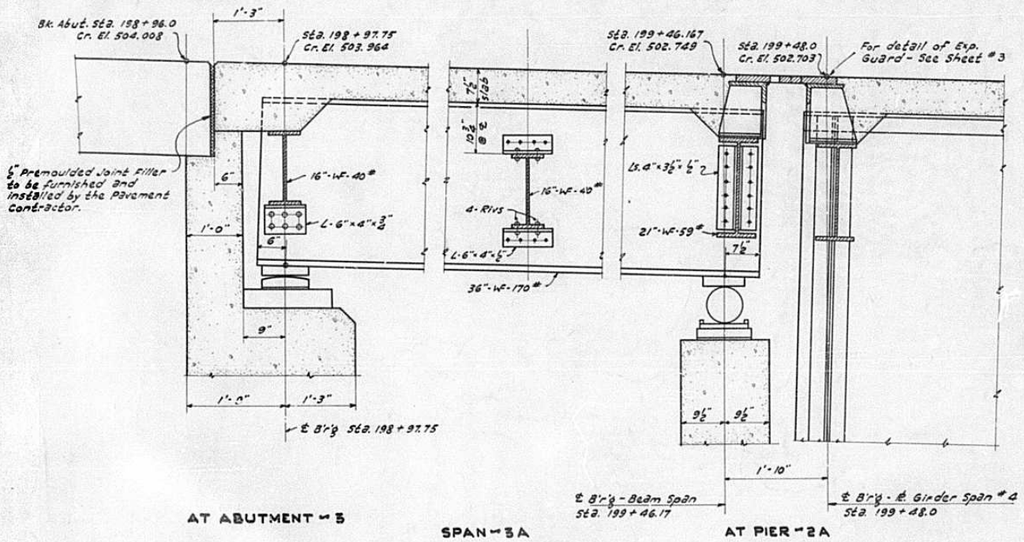
Rev. 5/12/41 - R.M.H.
• 3/9/46 - A.L.T.
• 11/3/47 - J.S.M.

ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
FA. ROUTE 172. SEC. 15-B-D-E-F-L-P
PEORIA - TAZEWELL COUNTIES

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

FED. ROAD DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA Rte. 172	15-D, 15-F	Peoria, Tazewell	44, 94	3, 33
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 604(A)		

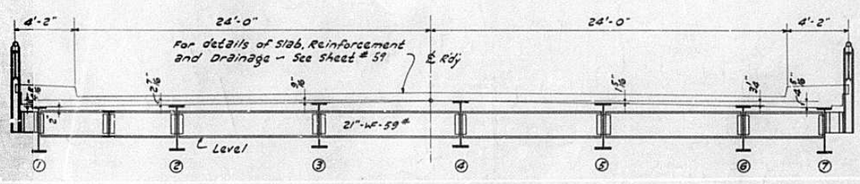
SHEET NO. 2
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F, Pt.



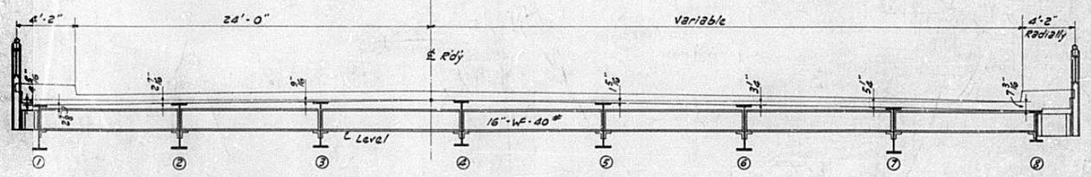
AT ABUTMENT - 3 SPAN - 3A AT PIER - 2A

SECTION - A-A

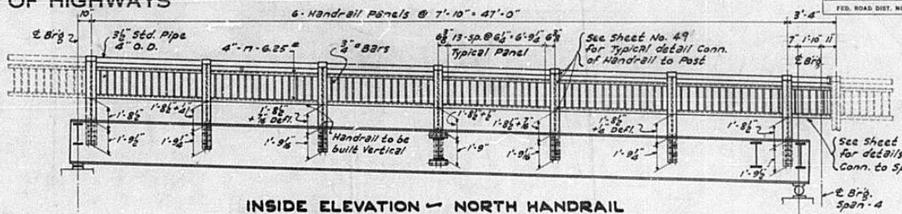
Scale - ⅜" = 1'-0"



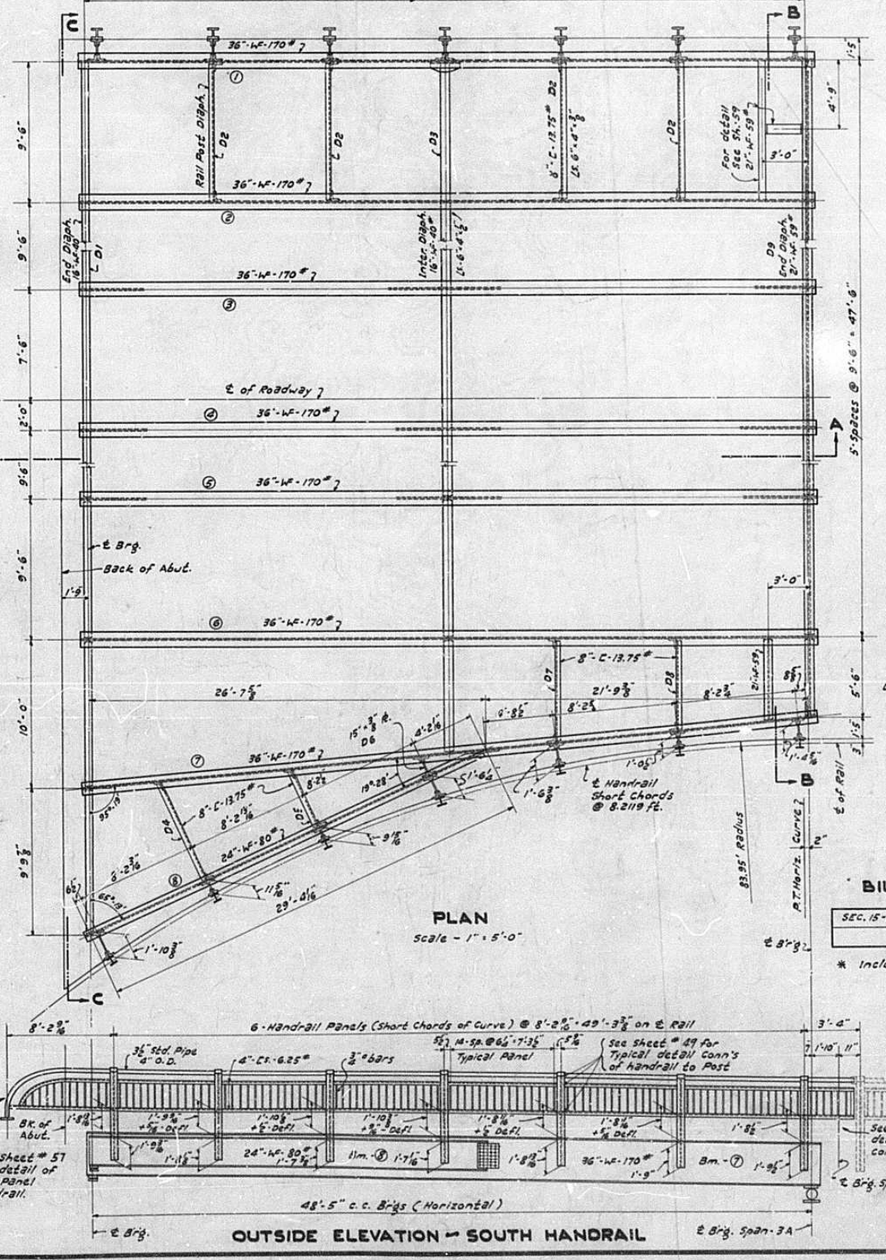
SECTION - B-B



SECTION - C-C

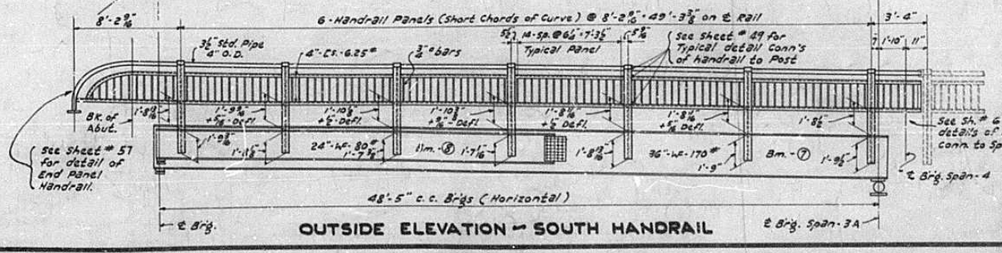


INSIDE ELEVATION - NORTH HANDRAIL

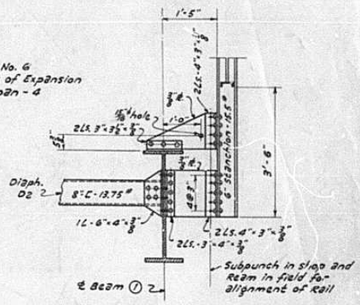


PLAN

Scale - 1" = 5'-0"

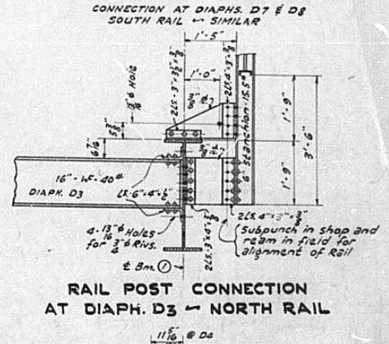


OUTSIDE ELEVATION - SOUTH HANDRAIL

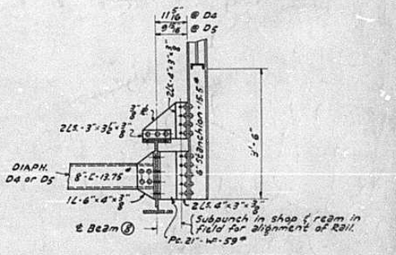


RAIL POST CONNECTION AT INT. DIAPHS. - NORTH RAIL

CONNECTION AT DIAPHS. D7 & D8 SOUTH RAIL - SIMILAR



RAIL POST CONNECTION AT DIAPH. D3 - NORTH RAIL



RAIL POST CONNECTION AT DIAPHS. D4 & D5 - SOUTH RAIL

Connection of Diaph. to Bm. ⑦ similar to detail at Bm. ⑧ except that angle is placed on inside of channel and flanges are notched.

BILL OF MATERIAL - SPAN - 3A

SEC. 15-E.F.P.	Structural Steel (Carbon) Lbs.	96,180 *

* Includes Expansion Guard at Pier - 2A

NOTE:
Rivets ¾" ø - Holes 13/16" ø unless noted.
General Notes - See Sheet # 37

STANDARD	COMPUTED	R.B. Murphy
	CHECKED	T. Davidson
	DRAWN	R.B.M. J. Malecki
	CHECKED	D.T.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5- 1941
H. T. Burch
BRIDGE ENGINEER

PASSED
K.E. Surman
ENGINEER OF DESIGN

APPROVED
Ernest Lieberman
CHIEF HIGHWAY ENGINEER

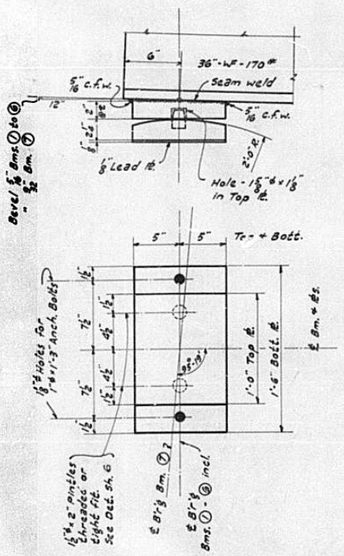
APPROVED 2-15-46 W. W. Polk
CHIEF HIGHWAY ENGINEER

DETAILS - SPAN 3A
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. RTE. 172 SEC. 15-E.F.P.D.
PEORIA - TAZEWELL COUNTIES

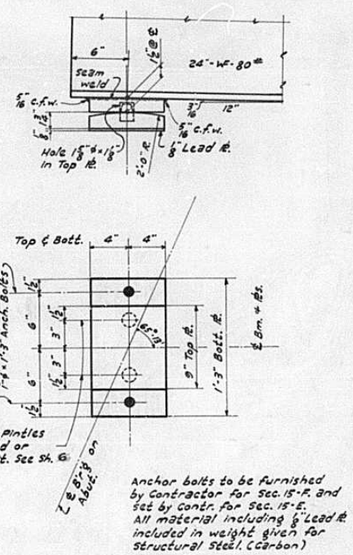
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15-D E,F	Peoria	44	4
		Tazewell	94	34
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 604A		

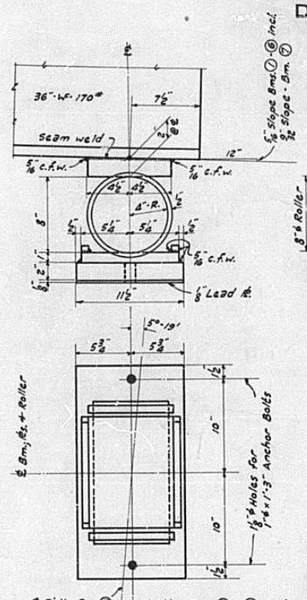
SHEET NO. 3
63 SHEETS SEC. 15-E
70 - SEC. 15-D-E PL

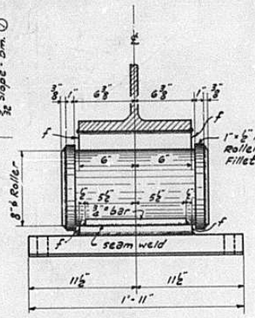


DETAIL - BEAMS 1 TO 7 INCL.
Ft. 10" x 2 1/2" x 1'-6" - 7 - Req'd Pintles
14 - Req'd



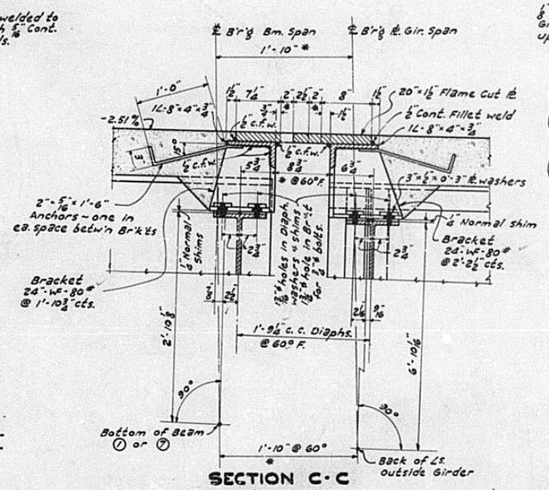
DETAIL - BEAM - 8
Ft. 8" x 2" x 1'-3" - 1 - Req'd Pintles
2 - Req'd



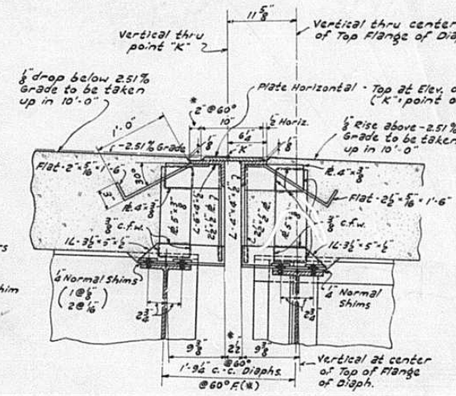


EXPANSION BEARING DETAILS AT PIER
Scale - 1 1/2" = 1'-0"

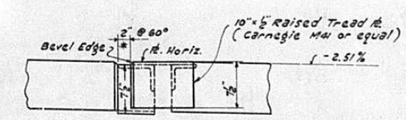
Bottom Bearing Ft. Assembly - 7 - Req'd
Steel Rollers 7 - Req'd
Anchor Bolts to be furnished by Contr for Sec. 15-F and set by Contractor for Section 15-E.



SECTION C-C
Scale - 1" = 1'-0"

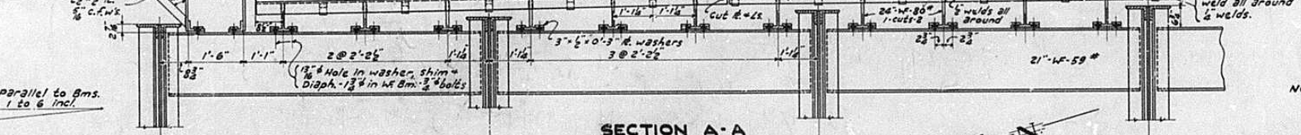


SECTION D-D
Scale - 1" = 1'-0"

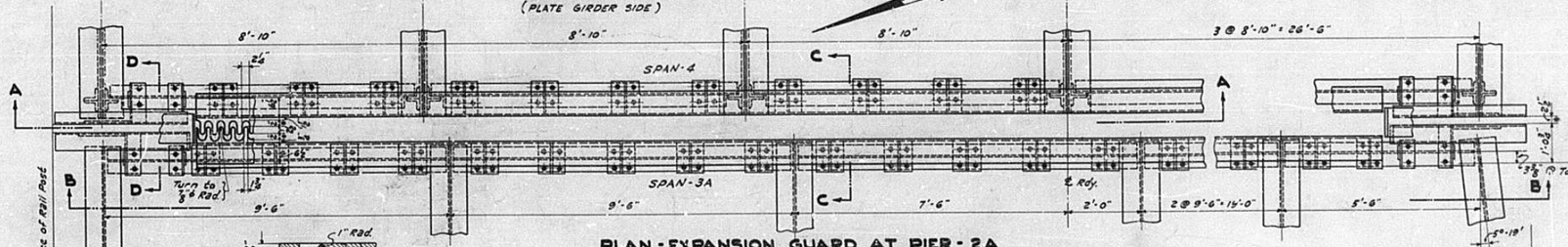


ELEVATION - FACE OF CURB
Scale - 1" = 1'-0"

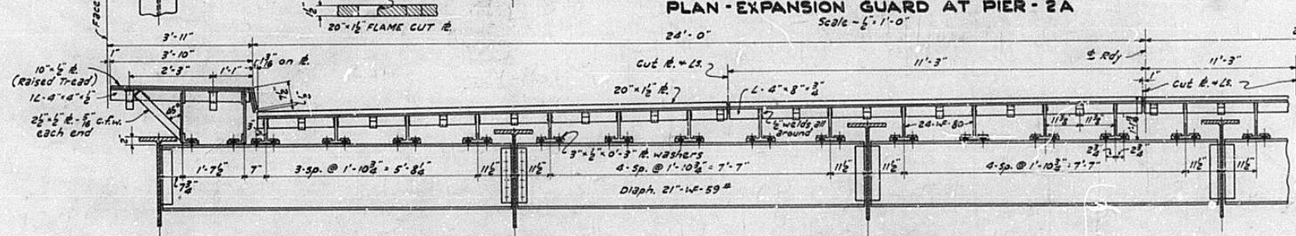
NOTE :-
* Decrease or increase this dimension 1/8" for each 10° F. hotter or colder than 60° F.



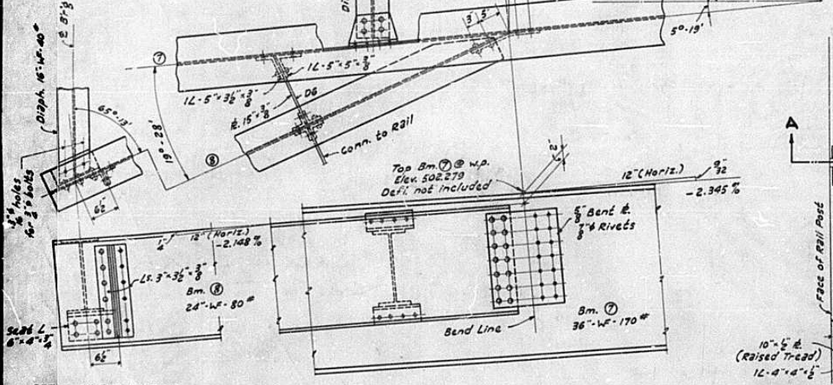
SECTION A-A
(PLATE GIRDER SIDE)



PLAN - EXPANSION GUARD AT PIER - 2A
Scale - 1/2" = 1'-0"



SECTION B-B
(BEAM SPAN SIDE)
Scale - 1/2" = 1'-0"



DETAIL OF END HANDRAIL CONNECTION TO BEAM-8

DETAILS OF CONNECTION - BEAM-8-TO BEAM-7
Scale - 3" = 1'-0"

NOTE :
20"x1 1/2" Flame Cut Ft., 8"x4"x5/16 L.s. on Rdy. Expansion Guard and 6"x4"x5/16 L.s. 4"x4"x5/16 L.s. on Sidewalk Exp. Guard to be Copper Bearing Steel A.S.T.M. Serial No. A-7-36. other material to be Structural Steel. Weight of Copper Bearing Steel included in item "Structural Steel (Carbon)"
Assemble Expansion Guards in shop in correct relative position. Leave assembled for inspection.
Paint for Expansion and Bearing Details same as for Structural Steel.

DETAILS - EXPANSION GUARD AT PIER - 2A

STANDARD	COMPUTED	R.B.Murphy
	CHECKED	S. Anderson
	DRAWN	R.B.M. J. Malecki
	CHECKED	R.M.
SPECIAL	ASSEMBLED	
	CHECKED	

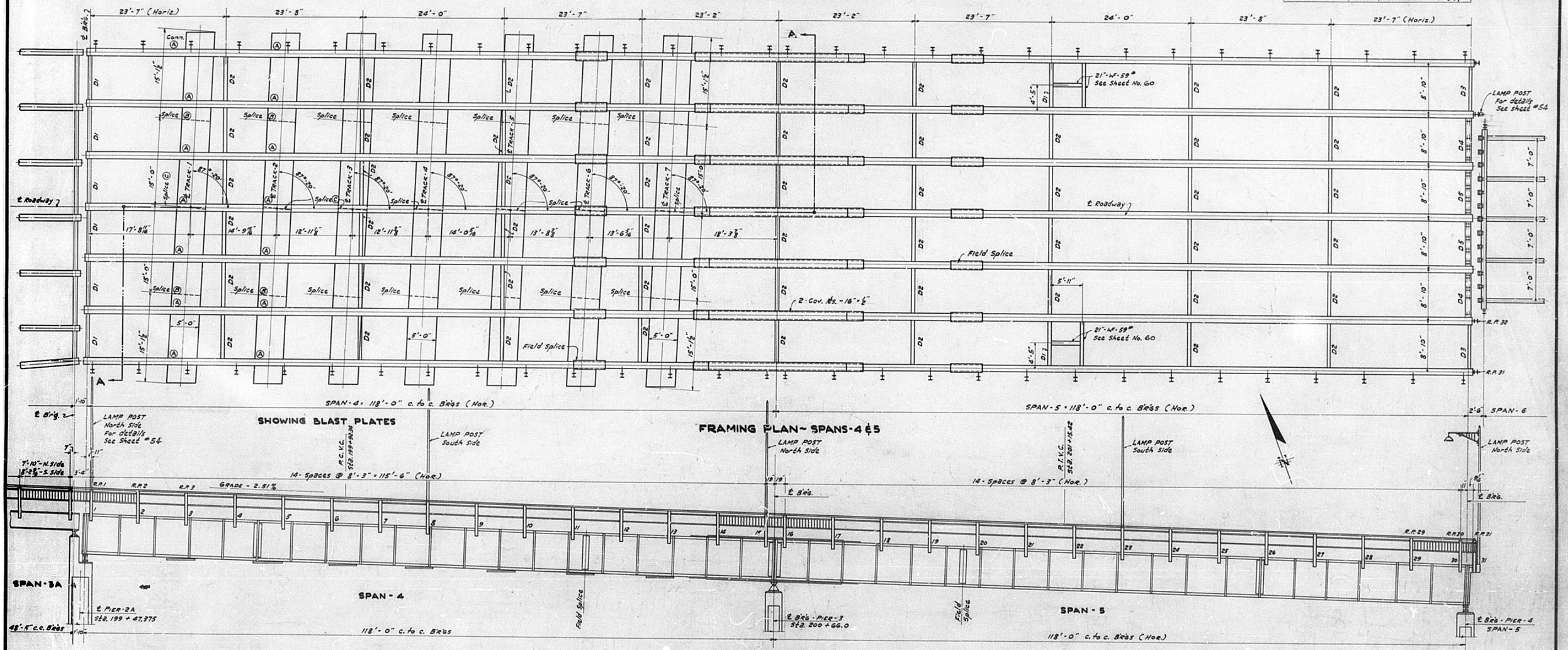
EXAMINED 5-5-1941
A. T. Bruce Jr. BRIDGE ENGINEER
PASSED H.E. Surman ENGINEER OF DESIGN
APPROVED Ernest Lieberman CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46 W. W. Roth CHIEF HIGHWAY ENGINEER

RAMP APPROACH - SPAN-3A
END BEARINGS & EXPANSION DETAILS
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. RTE. 172 SEC. 15 E.F.P.D.
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D E,F	Peoria	44	5
		Tazewell	94	35
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -	609A	

SHEET NO. 4
63 SHEETS SEC. 15-E
70 " SEC. 15-D F. P.L.



BLAST PLATES
BILL OF MATERIAL

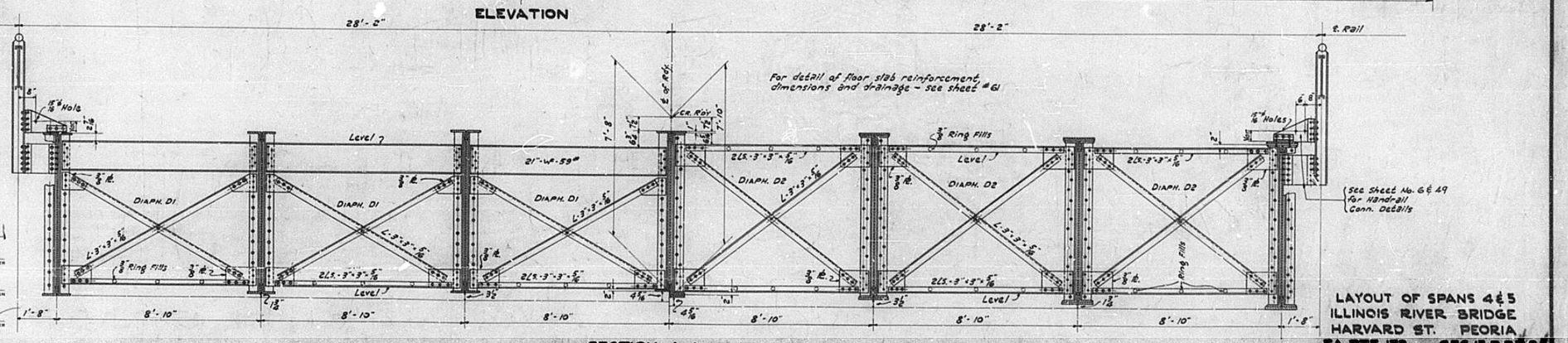
SECTION 15-E.F.P.	Structural Steel (Carbon)	Lbs. 50,590

SPANS 4 & 5
BILL OF MATERIAL

SECTION 15-E.F.P.	Structural Steel (Carbon)	Lbs.	545,220
" "	Cast Steel (Bolster & Shoes)	Lbs.	6,150

STANDARD	COMPUTED	R.P. Jensen
	CHECKED	E. Anderson
	DRAWN	Rod. J. Malecki
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5- 1941
A. T. Bruce BRIDGE ENGINEER
PASSED H. Sarman ENGINEER OF DESIGN
APPROVED Ernest Jaberman CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46 W. W. Polk CHIEF HIGHWAY ENGINEER



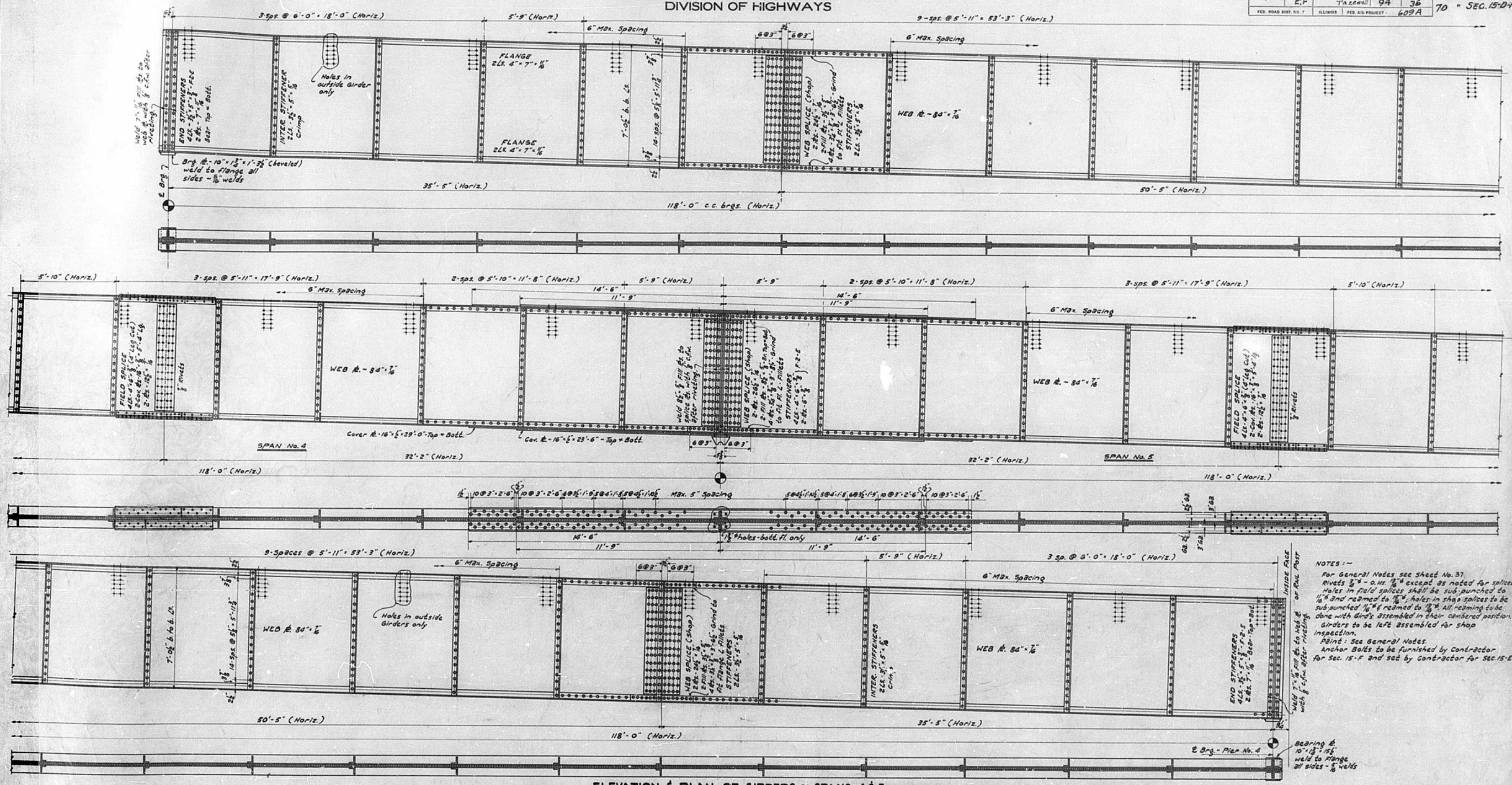
SECTION A-A

LAYOUT OF SPANS 4 & 5
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. RTE. 172 SEC. 15 E.F.P.
PEORIA-TAZEWELL CO'S

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

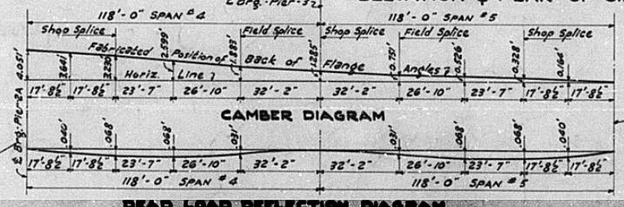
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D E.F	Peoria Tazewell	44 94	6 36
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -	609A	

SHEET NO. 5
63 SHEETS SEC. 15-E
70 " SEC. 15-D+E+P.L

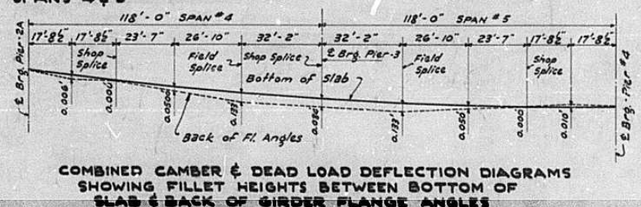


NOTES :-
For General Notes see Sheet No. 37.
Rivets ⅞" ø - D. Hr. 15/16" ø except as noted for splices.
Holes in field splices shall be sub-punched to 11/16" ø and reamed to 13/16" ø holes in shop splices to be sub-punched 1/16" ø reamed to 13/16" ø. All reaming to be done with Girds assembled in their cambered position.
Girders to be left assembled for shop inspection.
Paint : See General Notes.
Anchor Bolts to be furnished by Contractor for Sec. 15-F and set by Contractor for Sec. 15-E.

ELEVATION & PLAN OF GIRDERS ~ SPANS 4 & 5



DEAD LOAD DEFLECTION DIAGRAM



NOTE — Fillet Heights as shown are theoretical.

COMBINED CAMBER & DEAD LOAD DEFLECTION DIAGRAMS SHOWING FILLET HEIGHTS BETWEEN BOTTOM OF SLAB & BACK OF GIRDER FLANGE ANGLES

STANDARD	COMPUTED	Rothman
	CHECKED	E. Mickum
	DRAWN	Kurt. J. Frederick
	CHECKED	R.F.
SPECIAL	ASSEMBLED	
	CHECKED	

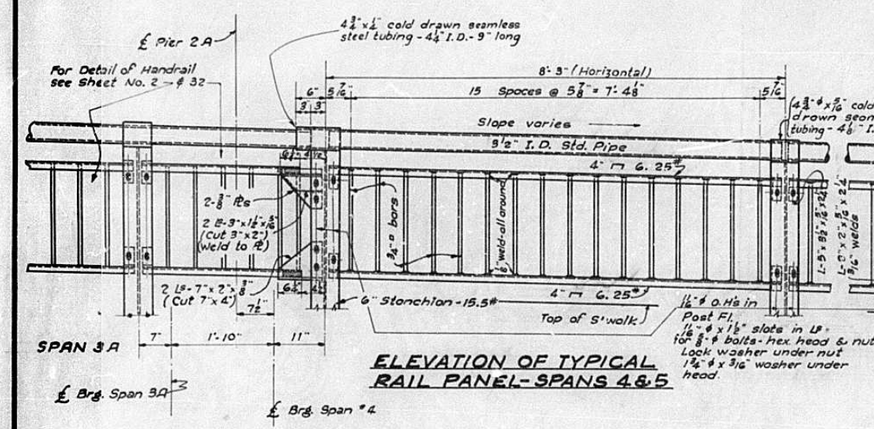
EXAMINED 5-5- 1941
H. F. Bunn
BRIDGE ENGINEER
PASSED H. C. Surman
ENGINEER OF DESIGN
APPROVED Ernst Lieberman
CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46
A. W. Peth
CHIEF HIGHWAY ENGINEER

DETAILS OF GIRDER - SPANS 4 & 5
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. RTE. 172 SEC. 15-E.F. P.D.4.
PEORIA - TAZEWELL COUNTIES

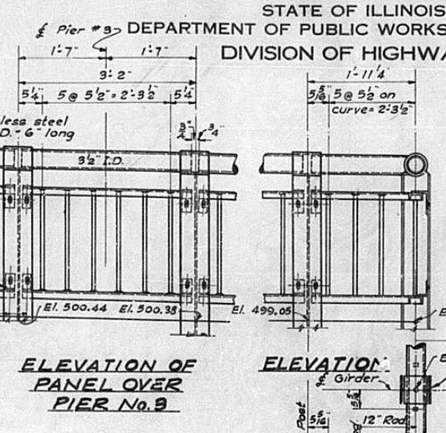
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
15-D E-F	Peoria Tazewell	44 94	7 37
ILLINOIS	FED. AID PROJECT: 609 A		

SHEET NO. 6
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F PL

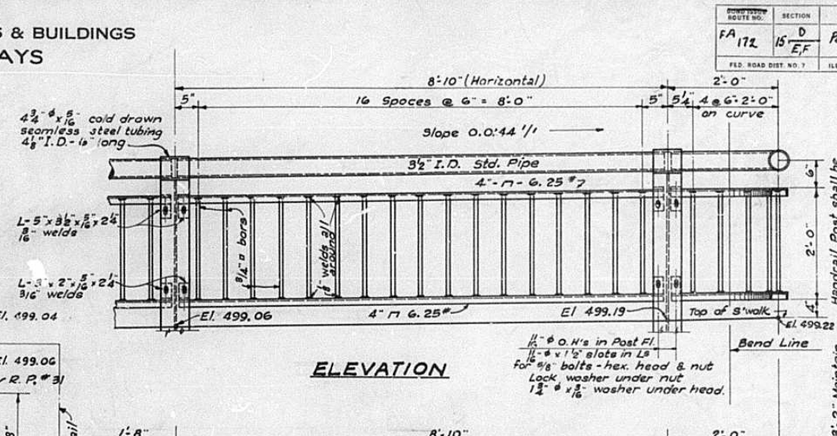


ELEVATION OF TYPICAL RAIL PANEL - SPANS 4&5

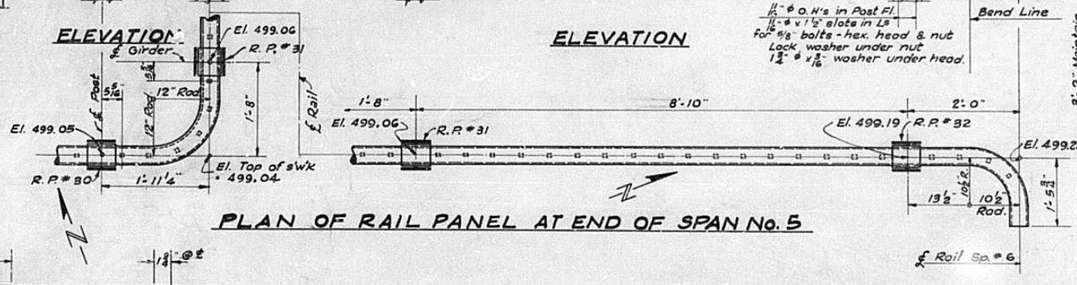


ELEVATION OF PANEL OVER PIER No. 3

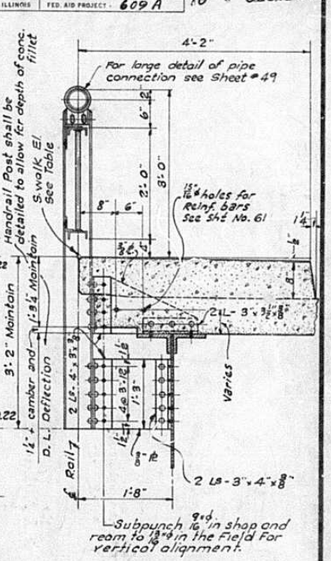
ELEVATION

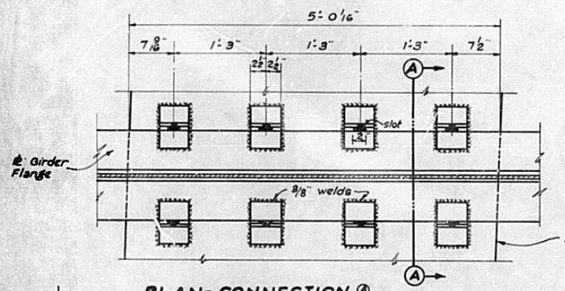


ELEVATION

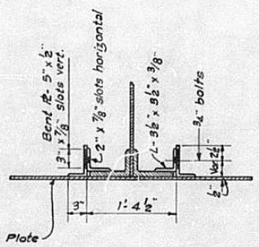


PLAN OF RAIL PANEL AT END OF SPAN No. 5

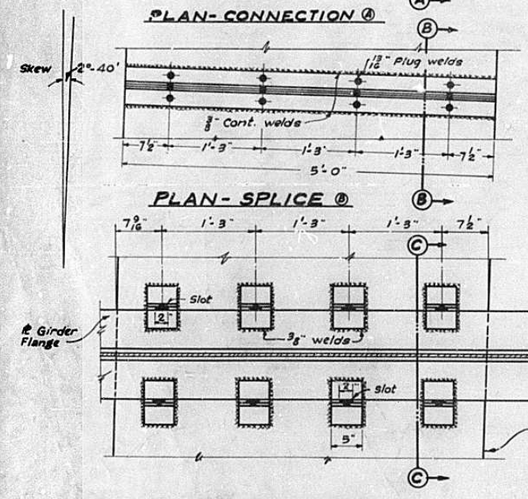




PLAN - CONNECTION A

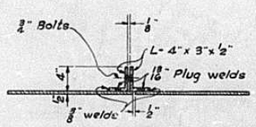


SECTION A-A

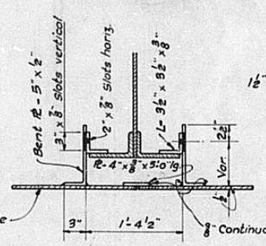


PLAN - SPLICE B

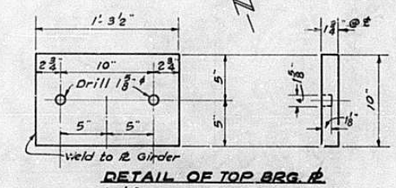
PLAN - SPLICE C



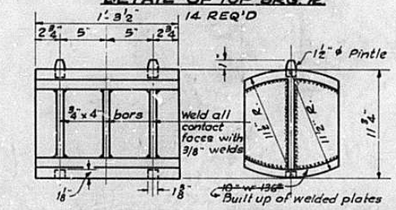
SECTION B-B



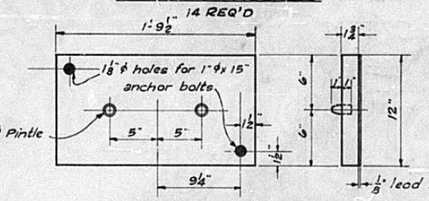
SECTION C-C



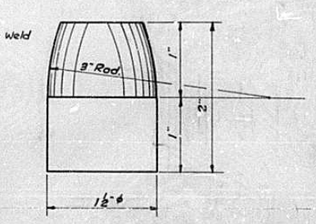
DETAIL OF TOP BRG. ℄
14 REQ'D



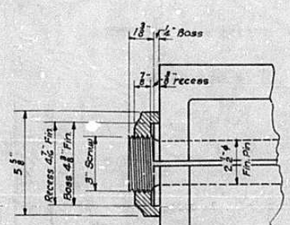
DETAIL OF ROCKER
14 REQ'D



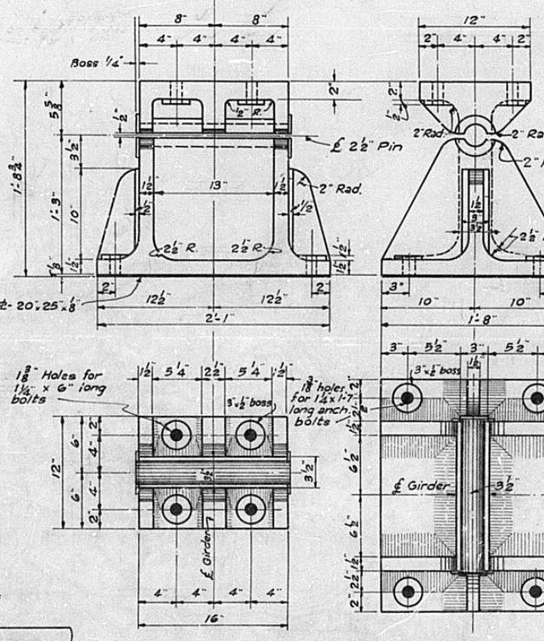
DETAIL OF BOTT. BRG. ℄
14 REQ'D



DETAIL OF PINTLE
56 REQ'D



DETAIL OF PIN AND NUT (PN24)



DETAIL OF CAST STEEL BOLSTERS
7 SETS REQUIRED
WT. CAST STEEL - Shown on sheet # 4

TABLE OF SIDEWALK ELEVATIONS AT ℄ OF POST & ℄ OF RAIL

Rail Post	S'walk El.	Rail Post	S'walk El.	Rail Post	S'walk El.
R.P.#1	503.07	R.P.#12	500.91	R.P.#23	499.34
R.P.#2	502.86	R.P.#13	500.74	R.P.#24	499.45
R.P.#3	502.66	R.P.#14	500.59	R.P.#25	499.37
R.P.#4	502.45	R.P.#15	500.44	R.P.#26	499.29
R.P.#5	502.24	R.P.#16	500.38	R.P.#27	499.22
R.P.#6	502.04	R.P.#17	500.24	R.P.#28	499.16
R.P.#7	501.83	R.P.#18	500.11	R.P.#29	499.10
R.P.#8	501.63	R.P.#19	499.98	R.P.#30	499.05
R.P.#9	501.44	R.P.#20	499.86	R.P.#31	499.06
R.P.#10	501.26	R.P.#21	499.75	R.P.#32	499.19
R.P.#11	501.08	R.P.#22	499.64		

- NOTES -

Blast plates shall be 60" wide and 1/2" thick and shall conform to the A.S.T.M. specifications A-7 designation for structural steel except 0.20% copper shall be added. All connection plates and angles and splice angles shall be structural steel. All exposed nuts and bolts shall be galvanized. Blast plates, nuts, bolts and splice material shall be paid for as structural steel. Paint the same as structural steel.

Blast plates shall be built level longitudinally and transversely and shall contact the bottom flange or splice plates at the lowest point on the girder.

BLAST PLATE DETAILS

STANDARD	COMPUTED	Rud Hansen
	CHECKED	[illegible]
	DRAWN	Rud. HENRY D. TEFFT
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-41 — BRIDGE ENGINEER
PASSED — ENGINEER OF DESIGN
APPROVED — ENGINEER OF MAINTENANCE AND SUPERINTENDENT OF HIGHWAY
APPROVED 2-15-46 — CHIEF HIGHWAY ENGINEER

Rev. 2-7-46 G.P.J.

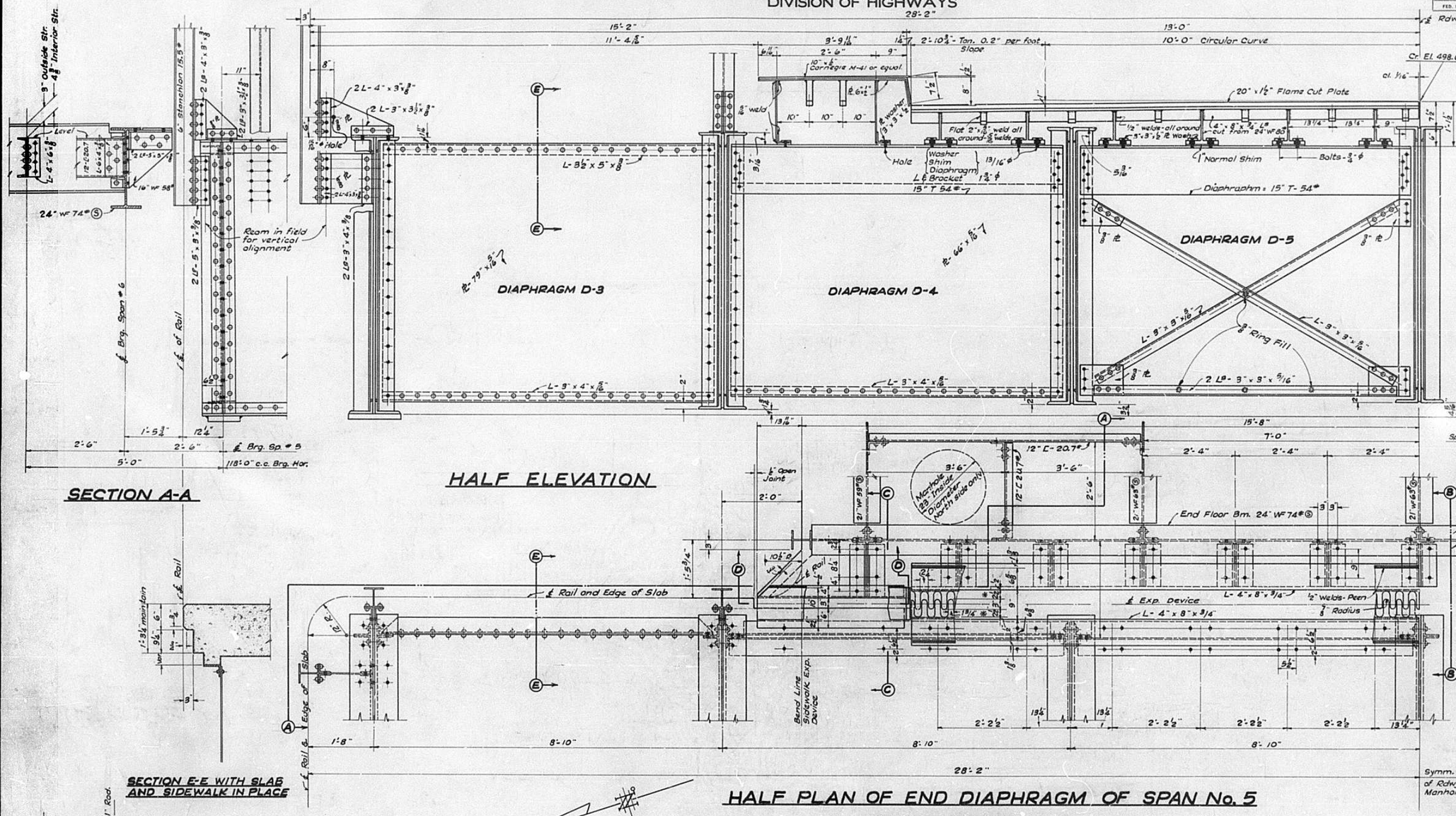
DETAIL OF HANDRAIL - BLAST PLATES AND BEARING PLATES - SPANS 4 & 5
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F. A. RTE. 172 - SEC. 15-D-E-F
PEORIA - TAZEWELL COUNTIES

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

ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ROUTE NO. FA 172	15-D 15-E,F	Peoria	44	8
		Tazewell	94	38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

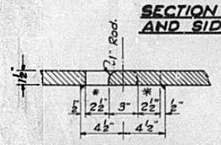
SHEET NO. 7
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F-P.L

HALF ELEVATION



SECTION A-A

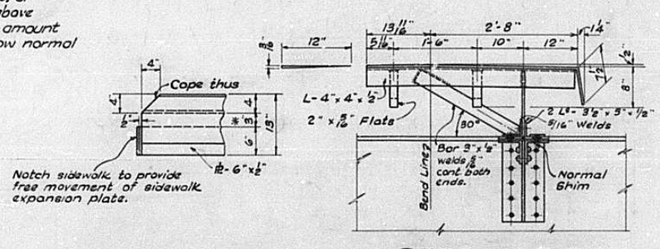
SECTION E-E WITH SLAB AND SIDEWALK IN PLACE



DETAIL OF FLAME CUT PLATE

HALF PLAN OF END DIAPHRAGM OF SPAN No. 5 AND EXPANSION DEVICE

* NOTE TO ERECTOR
Decrease each dimension by ⅛" per 100 ft. of bridge for each 15° rise in temperature above normal of 60° F. Increase by the same amount for each 15° F drop in temperature below normal of 60° F.



SECTION D-D

NOTES

Copper bearing steel (A.S.T.M. Designation A-7-36 with 0.2% copper added) shall be used in the following members of Expansion Device:
20" x ½" Flame cut plate.
4" x 8" x ⅜" Roadway angles.
4" x 4" x ½" Sidewalk angles
6" x ½" Sidewalk expansion plate.

Roadway and Sidewalk Expansion Devices shall be assembled in the shop in their proper position with the two adjacent spans in place and shall be left assembled for shop inspection.

Expansion devices shall be fabricated with 1" normal shims between floor beam or diaphragm and expansion device brackets. Normal shims shall be made up of 2-¼", 2-⅛" & 4-1/16" shims. Use ¾" ϕ rivets except as noted. Holes 13/16" ϕ.

Paint same as structural steel.

BILL OF MATERIAL
EXPANSION DEVICE AT PIER 4

Sec. 15-E	Structural steel (Carb.)	Lbs.	7,920
Sec. 15-F	Structural steel "	Lbs.	7,920
Sec. 15-P	Structural steel "	Lbs.	7,920

DETAIL OF END DIAPHRAGM FOR SPAN No. 5 AND EXPANSION DEVICE AT PIER No. 4

ILLINOIS RIVER BRIDGE
HARVARD STREET - PEORIA
F. A. RTE. 172 - SEC. 15 D-E-F-P.L.
PEORIA - TAZEWELL COUNTIES

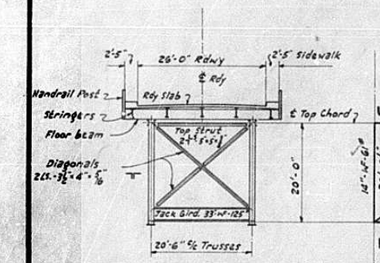
STANDARD	COMPUTED	R.W. Hansen
	CHECKED	[illegible]
	DRAWN	Rush. Henry D. Tefft Jr.
	CHECKED	[illegible]
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
A. T. Bruhn BRIDGE ENGINEER
PASSED H. E. Sarman ENGINEER OF DESIGN
APPROVED Ernst Lieberman CHIEF HIGHWAY ENGINEER
APPROVED 2-15-41
W. W. Pohl CHIEF HIGHWAY ENGINEER

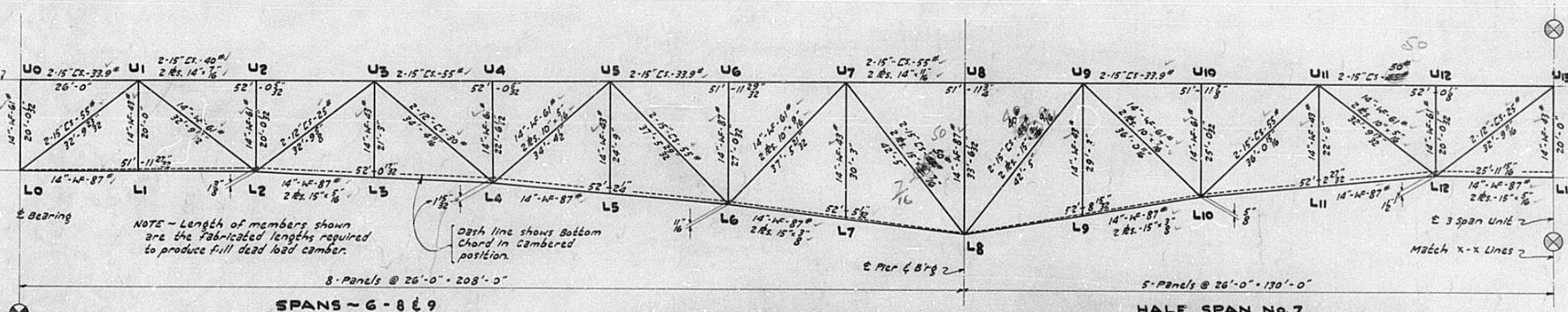
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	D	Peoria	44	9
	15 E.F.	Tazewell	94	39
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 8
63 SHEETS SEC. 15-E
70 - SEC. 15D-F P.L.



TYPICAL CROSS BRACING AT U0 & U0A

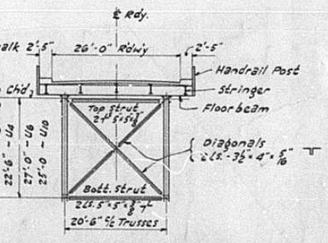


SPANS ~ 6 - 8 & 9

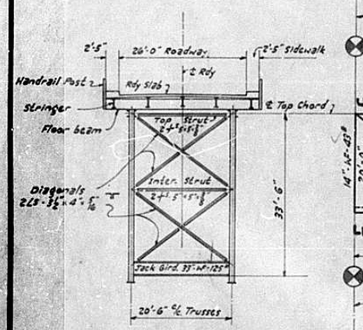
ELEVATION OF TRUSS

HALF SPAN No. 7

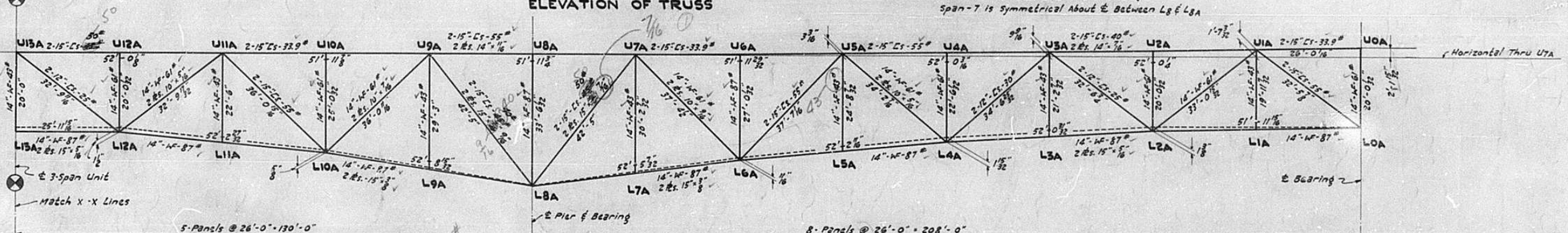
Span-7 is Symmetrical About ℄ Between L8 & L8A



TYPICAL CROSS BRACING AT U2-U4-U6-U10 & U12 - RIGHT HALF SIMILAR



TYPICAL CROSS BRACING AT U8 & U8A

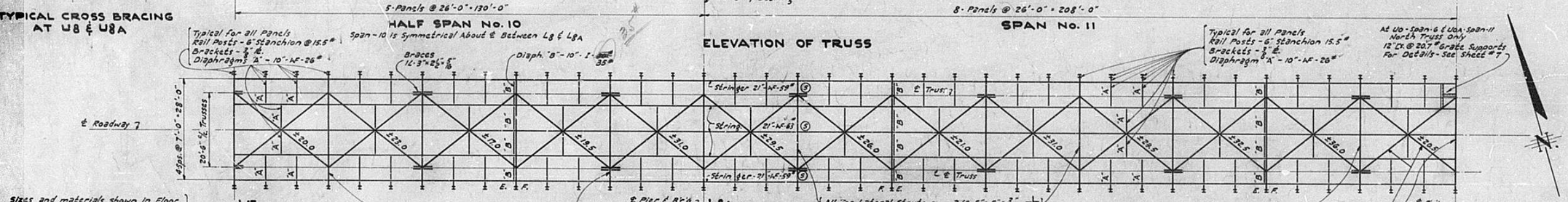


HALF SPAN No. 10

Span-10 is Symmetrical About ℄ Between L8 & L8A

ELEVATION OF TRUSS

SPAN No. 11



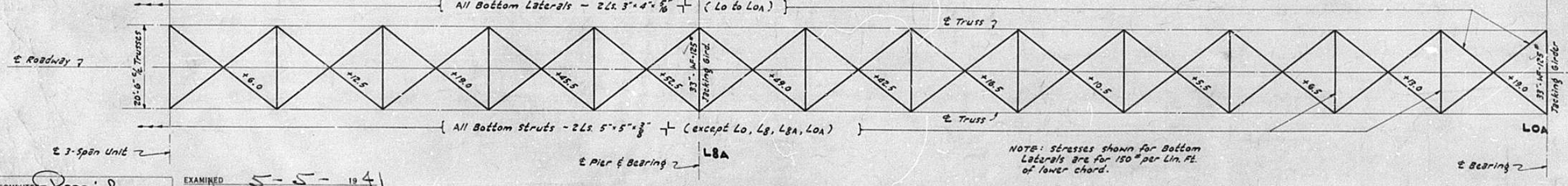
Sizes and materials shown in Floor System Framing Plan and in Top & Bottom Lateral Plans are Symmetrical about ℄ for Spans 6-7-8 and Spans 9-10-11.

TOP LATERAL & FLOOR SYSTEM FRAMING PLAN

BILL OF MATERIAL ~ SPANS 6 TO 11 INCLUSIVE

SECTION 15-E.F.P.	Structural Steel - Carbon	Lbs.	1,981,890
	Structural Steel - Silicon	Lbs.	535,920

For quantities of Cast Steel & Structural Steel (carbon), on Bearing Details - See Sheet No. 18



NOTE: Stresses shown for Bottom Laterals are for 150# per Lin. Ft. of lower chord.

PLAN BOTTOM LATERAL BRACING

NOTE ~ : For General Design & Fabrication Notes See Sheet No. 37
For Erection Notes See Special Provisions.

All dimensions shown above are based on a normal Temp. of 60°F.

STANDARD	COMPUTED	
	CHECKED	A.D. Homes
	DRAWN	F.M. & T.M.
	CHECKED	A.R.J.
SPECIAL	ASSEMBLED	
	CHECKED	

Rev 1-7-46 R.B.M. A.R.J.

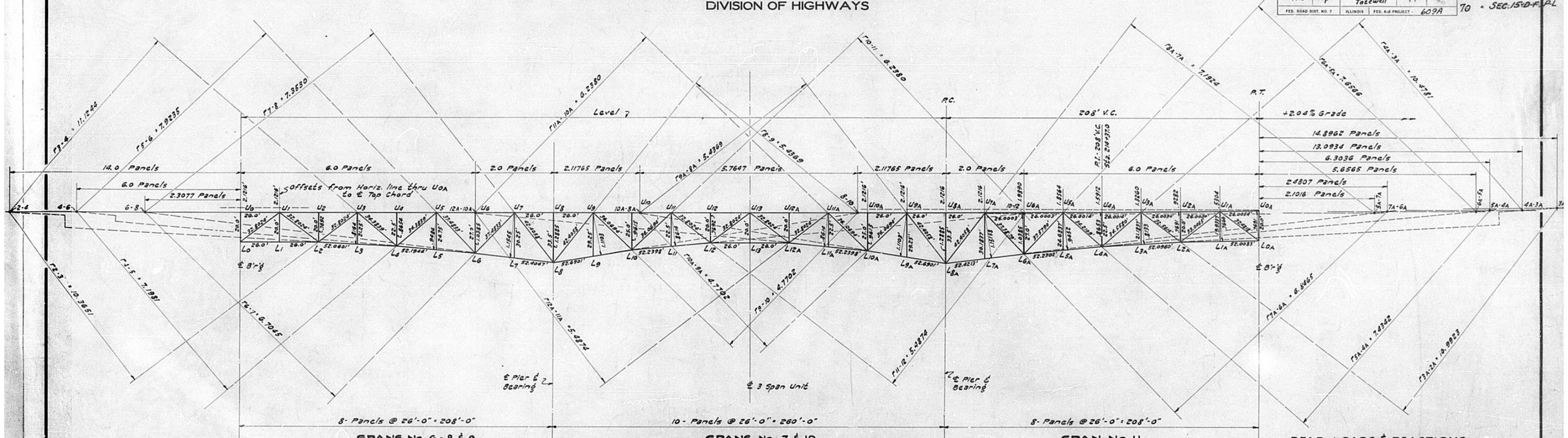
EXAMINED 5-5-1941
H.T. Burch BRIDGE ENGINEER
PASSED H.E. Surman ENGINEER OF DESIGN
APPROVED Ernest Greenman CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46 W.W. Polk CHIEF HIGHWAY ENGINEER

SPANS 6 TO 11 INCL.
~ TRUSS FRAMING PLAN ~
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 SECTION 15-E.F.P.D.#.
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	40
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 9
63 SHEETS SEC. 15-E
70 " SEC. 15-E-F PL



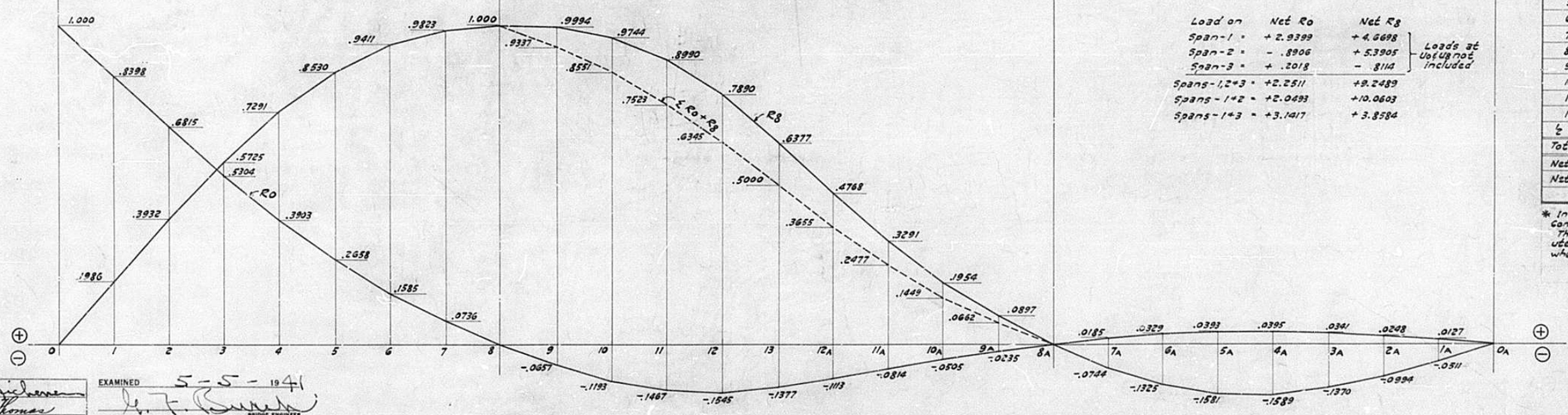
DEAD LOADS & REACTIONS

PANELS	SPANS - 6, 7 & 8		
	Steel *	Concrete	Total
0	17.380	20.400	37.780
1	22.158	40.580	62.738
2	24.424	41.091	65.515
3	22.809	40.580	63.389
4	23.788	40.580	64.368
5	23.068	40.580	63.648
6	26.669	41.091	67.760
7	27.180	40.580	67.760
8	35.351	40.580	75.931
9	26.555	40.580	67.135
10	25.194	41.091	66.285
11	22.419	40.580	62.999
12	22.870	40.580	63.450
½ of 13	10.827	20.290	31.117
Total	330.692	529.183	859.875
Net Ro	53.16	91.7	144.86
Net Rg	224.81	376.5	601.31

* Includes wt. of Gas Main & Electric cable, conduit and messenger.
The above figures are based on the computed weights and may be revised slightly when the shop weights are checked.

DIMENSIONS & LEVER ARMS - SPANS 9, 10-11 AS SHOWN
SPANS 6, 7 & 8 - SYMM. ABT. ℄ 3 SPAN UNIT BY ROTATION OF LEFT HALF

(Truss dimensions are in Ft. and Lever Arms are in Panels)
Dimensions shown do not include Camber
SCALE: HORIZ. & VERT. = 1" = 30 Ft.



Load on	Net Ro	Net Rg	
Span-1 =	+ 2.9399	+ 4.6698	Loads at Uo & Uo not included
Span-2 =	- .8906	+ 5.3905	
Span-3 =	+ .2018	- .8114	
Spans-1, 2+3 =	+2.2511	+9.2489	
Spans-1+2 =	+2.0493	+10.0603	
Spans-1+3 =	+3.1417	+ 3.8584	

INFLUENCE LINES FOR REACTIONS Ro & Rg

SCALES: HORIZ. = 1" = 30 Ft.
VERT. = 5" = 1.000

STANDARD	COMPUTED	P.M. Johnson
	CHECKED	A. L. Thomas
	DRAWN	P.T.S. J. Tkalecki
	CHECKED	A.L.T.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
H. F. Smith
BRIDGE ENGINEER

PASSED H.E. Sarman
ENGINEER OF DESIGN

APPROVED Ernest Lieberman
CHIEF HIGHWAY ENGINEER

APPROVED 2-15-46
A. W. Peik
CHIEF HIGHWAY ENGINEER

SPANS - 6 TO 11 INCL.
DIMENSIONS, LEVER ARMS & REACTION LINES
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172, SECTION 15-E.F.
PEORIA - TAZEWELL COUNTIES

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

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
15 E F	Peoria Tazewell	94	41

FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT - 609A

SHEET NO. 10
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F RL

STRESS AND DESIGN DATA FOR TRUSSES

MEMBER	SECTION	AREA GROSS SQ. IN. A	AREA NET SQ. IN. A'	LENGTH (FT.) C. TO C. l IN FEET	LENGTH (FT.) UNSUPPORTED l'	RADIUS OF GYRATION r	l/r x 12	ALLOWABLE UNIT STR. D+L+I KIPS/□"	ALLOWABLE UNIT STR. D+L+I+W KIPS/□" 1.25%	ALLOWABLE STRESS D+L+I KIPS	DEAD LOAD STRESS STEEL SUPER Ds	DEAD LOAD STRESS CONCRETE FLOOR	DEAD LOAD STRESS TOTAL KIPS D	LIVE LOAD STRESS H20 + IMP. L + I	D+L+I	WIND STRESSES (KIPS) 300#/LIN. FT. LOADED CHORD & 150# LIN. FT. UNLOADED CHD. W2	30#/□ x 2 W1	UNIT STRESSES (KIPS/□") D+L+I	D+L+I+W2	D+L+I+W1	THEORETICAL Correction in LENGTH Dl / A x 30,000 INCHES	FABRICATED LENGTH FT-IN. FOR D.L. CAMBER	ACTUAL Correction in LENGTH + FABR. LGTH. - NORM. LGTH. INCHES	DEFORMATION DUE TO STEEL WT. ONLY Dsl / A x 30,000 INCHES		MEMBER
Uo-U1	2-15"-CS-33.9#][	19.8		26.00	26.00						0	0	0	±15.0	0	±15.6	0				26'-0"	0	0			Uo-U1
U1-U3	2-15"-CS-40# & 2 PL-14"×⅝"][	35.65		52.00	26.00	5.00	63.0	-14.0	17.5	-499.0	-109.5	-183.7	-295.2	-212.8	-508.0	±55.2	±57.4	-14.25	-15.80	-15.85	52'-0 5/32"	+.1760 +.1764 *	-.0639			U1-U3
U3-U5	2-15"-CS-55#][	32.22		52.00	26.00	5.16	60.5	-14.05	17.56	-453.0	-86.1	-141.4	-227.5	-231.5	-459.0	±60.3	±62.8	-14.24	-16.10	-16.18	52'-0 5/32"	+.1760 +.1848 *	-.0556			U3-U5
U5-U7	2-15"-CS-33.9#][	19.8	15.70	52.00	26.00	5.62	56.0	+18.0	22.5	+283.0	+27.4	+58.3	+85.7	+143.3 +114.7	+233.0 +29.0	±41.2	±42.9	+14.85 -1.46	+17.46	+17.56	51'-11 23/32"	-.1020	+.0288			U5-U7
U7-U9	2-15"-CS-55# & 2 PL-14"×⅛"][	51.47	42.96	52.00	26.00			+18.0	22.5	+774.0	+182.3	+315.7	+498.0	+260.0	+758.0	±67.2	±70.0	+17.65	+19.22	+19.28	-.2436	51'-11 7/8"	-.2495			U7-U9
U9-U11	2-15"-CS-33.9#][	19.8	16.1	52.00	26.00	5.62	56.0	+18.0	22.5	+254.0	+47.8	+84.2	+132.0	+89.0 -42.9	+221.0	±56.8	±33.3	+15.67	+18.28	+18.40	-.1366	51'-11 7/8"	-.1248	+.0504		U9-U11
U11-U13	2-15"-CS-50#][	29.28		52.00	26.00	5.24	59.6	-14.1	17.62	-372.0	-57.2	-105.7	-162.9	-199.1	-362.0	±56.8	±59.1	-12.37	-14.26	-14.36	+.1157	52'-0 1/4"	+.1248	-.0406		U11-U13
Lo-L2	14"-WF-87# H	25.56	20.06	52.00	26.00			+18.0	22.5	+361.0	+69.1	+113.2	+188.3	+127.7	+316.0	±31.6	±35.8	+15.80	+17.98	+17.54	-.1514	51'-11 15/16" -1/32" = 15/16"	-.1560 -.1650 *	+.0569		Lo-L2
L2-L4	14"-WF-87# & 2 PL-15"×⅝" H	34.94	30.03	52.06	26.03			+18.0	22.5	+542.0	+111.0	+187.2	+298.2	+241.8	+540.0	±44.9	±51.9	-17.95	+19.43	+19.65	-.1758	52'-0 1/32" 52'-0 3/32"	-.1696 -.1876 *	+.0661		L2-L4
L4-L6	14"-WF-87# H	25.56	20.06	52.194	26.097			+18.0	22.5	+361.0	+36.6	+53.9	+90.5	+182.5	+273.0	±35.8	±40.8	+13.61	+15.97	+15.65	-.0729	52'-2 3/4" 52'-2 7/8" *	-.0828 -.0744 *	+.0299		L4-L6
L6-L8	14"-WF-87# & 2 PL-15"×⅝" H	36.81		52.405	26.203	3.91	80.4	-13.5	16.88	-497.0	-102.1	-185.0	-287.1	-180.9	-468.0	±59.4	±60.3	-12.70	-14.15	-14.25	+.1612	52'-8 29/32" 52'-8 29/32" *	+.1732 +.1832 *	-.0582		L6-L8
L8-L10	14"-WF-87# & 2 PL-15"×⅝" H	36.81		52.690	26.345	3.91	81.0	-13.3	16.63	-490.0	-114.7	-201.2	-315.9	-182.1	-498.0	±52.6	±59.5	-11.52	-14.95	-15.20	+.1786	52'-8 5/32"	+.1872	-.0657		L8-L10
L10-L12	14"-WF-87# H	25.56	20.06	52.240	26.120			+18.0	22.5	+361.0	+11.8	+23.8	+35.6	+128.4	+164.0	±37.7	±41.1	+8.16	+10.05	+10.23	-.0294	52'-2 27/32"	-.0336	+.0096		L10-L12
L12-L12A	14"-WF-87# & 2 PL-15"×⅝" H	34.94	26.94	52.00	26.00			+18.0	22.5	+485.0	+70.9	+132.3	+203.2	+216.8	+420.0	±49.1	±55.1	+15.58	+17.40	+17.63	-.0598	51'-11 7/8"	-.1248	+.0430		L12-L12A
Lo-U1	2-15"-CS-55# []	32.22		32.802		5.16	76.0	-13.5		-435.0	-87.2	-150.4	-237.6	-176.4	-414.0			-12.84			+.0955	32'-3 23/32" 32'-3 7/8" *	+.0990 +.0936 *	-.0355		Lo-U1
U1-L2	14"-WF-61# H	17.94	15.37	32.802		2.45	161.0	+18.0		+277.0	+50.9	+83.8	+134.7	+194.3	+269.0			+17.50			-.0979	32'-0 1/32" 32'-0 1/32" *	-.0971 -.0888 *	+.0372		U1-L2
L2-U3	2-12"-CS-25# []	14.63	10.32	32.802		4.43	88.0	-13.0		-190.5	-1.2	-1.7	-2.9	-88.0 +73.9	+88.0 +73.0			-5.68 +7.07			+.0094	32'-0 3/4" 32'-0 7/8" *	+.0036 +.0132 *	-.0011		L2-U3
U3-L4	2-12"-CS-30# []	17.58		34.384		4.28	97.0	-12.6		-221.0	-32.6	-60.4	-93.0	-101.0 +52.4	-194.0			-11.05			+.0720	32'-4 11/16" 32'-6 13/16" *	+.0804 +.0852 *	-.0256		U3-L4
L4-U5	14"-WF-61# & 2 PL-10"×⅝" H	24.19	20.37	34.384				+18.0		+367.0	+63.9	+116.0	+181.9	+129.1 +22.4	+305.0			+14.97			-.1021	32'-6 11/16" 32'-6 7/16" *	-.1088 -.0936 *	+.0375		L4-U5
U5-L6	2-15"-CS-55# []	32.22		37.483		5.16	87.0	-13.1		-422.0	-91.8	-160.4	-255.2	-148.8	-402.0			-12.47			+.1163	33'-3 11/16" 33'-3 7/16" *	+.1098 +.1140 *	-.0428		U5-L6
L6-U7	14"-WF-61# & 2 PL-10"×⅝" H	29.19	24.37	37.483				+18.0		+438.0	+106.9	+180.4	+287.3	+153.7	+441.0			+18.0			-.1454	33'-3 9/16" 33'-3 7/16" *	-.1428 -.1548 *	+.0550		U7-L8
U7-L8	2-15"-CS-50# & 2 PL-15"×⅞" []	42.41		42.406		4.97	102.4	-12.36		-513.0	-132.0	-216.0	-348.0	-177.0	-525.0			-12.36			+.1393	42'-5"	+.1308	-.0523		U7-L8
L8-U9	2-15"-CS-40# & 2 PL-15"×⅝" []	40.28		42.406		5.01	101.6	-12.02		-489.0	-112.8	-191.0	-303.8	-175.2	-479.0			-11.9			+.1280	42'-5"	+.1308	-.0485		L8-U9
U9-L10	14"-WF-61# & 2 PL-10"×⅝" H	26.69	22.37	36.069				+18.0		+403.0	+90.8	+158.8	+249.6	+193.4	+403.0			+18.00			-.1333	36'-0 11/16"	-.1452	+.0491		U9-L10
L10-U11	2-15"-CS-55# []	32.22		36.069		5.16	84.0	-13.2		-425.0	-92.7	-149.6	-232.3	-162.7	-395.0			-12.25			+.1028	36'-0 15/16"	+.1044	-.0382		L10-U11
U11-L12	14"-WF-61# & 2 PL-10"×⅝" H	24.19	20.37	32.802				+18.0		+367.0	+57.2	+103.6	+160.8	+140.2	+301.0			+14.77			-.0862	32'-9 27/32"	-.0972	+.0911		U11-L12
L12-U13	2-12"-CS-25# []	14.64		32.802		4.43	88.0	-13.0		-190.5	-17.7	-33.3	-51.0	-108.0	-159.0			-10.86			+.0454	32'-9 11/16"	+.0588	-.0159		L12-U13
U1-L1	14"-WF-43# H	12.65	10.54	20.00		1.89	127.0	+18.0		+190.0												20'-0"				U1-L1
U3-L3	14"-WF-43# H	12.65	10.54	21.25		1.89	135.0	+18.0		+190.0												21'-3"				U3-L3
U5-L5	14"-WF-43# H	12.65	10.54	24.75		1.89	157.0	+18.0		+190.0												24'-9"				U5-L5
U7-L7	14"-WF-43# H	12.65	10.54	30.25		1.89	192.0	+18.0		+190.0												30'-3"				U7-L7
U9-L9	14"-WF-43# H	12.65	10.54	29.25		1.89	186.0	+18.0		+190.0												29'-3"				U9-L9
U11-L11	14"-WF-43# H	12.65	10.54	22.50		1.89	143.0	+18.0		+190.0												22'-6"				U11-L11
U13-L13	14"-WF-43# H	12.65	10.54	20.00		1.89	127.0	+18.0		+190.0												20'-0"				U13-L13
Uo-Lo	14"-WF-61# H	17.94		20.00		2.45	98.0	-12.6		-226.0				-53	-64.2	-97.2					+.0144	20'-0 1/32"	+.0312	-.0016		Uo-Lo
U2-L2	14"-WF-61# H	17.94		20.00		2.45	98.0	-12.6		-226.0				-58	-61.4	-119.4					+.0259	20'-0 1/32"	+.0312	-.0029		U2-L2
U4-L4	14"-WF-61# H	17.94		22.50		2.45	110.0	-11.95		-214.0				-56	-61.4	-117.4					+.0282	22'-6 1/32"	+.0312	-.0030		U4-L4
U6-L6	14"-WF-87# H	25.56		27.00		3.70	88.0	-13.0		-331.0				-58	-61.4	-119.4					+.0245	27'-0 1/32"	+.0312	-.0028		U6-L6
U8-L8	14"-WF-87# H	25.56		33.50		3.70	108.5	-12.05		-308.0				-59	-61.4	-120.4					+.0311	33'-6 1/32"	+.0312	-.0034		U8-L8
U10-L10	14"-WF-61# H	17.94		25.00		2.45	122.0	-11.3		-202.5				-57	-61.4	-118.4					+.0317	25'-0 1/32"	+.0312	-.0037		U10-L10
U12-L12	14"-WF-61# H	17.94		20.00		2.45	98.0	-12.6		-226.0				-55	-61.4	-116.4					+.0247	20'-0 1/32"	+.0312	-.0029		U12 L12

SAME AS C. TO C. l

FLOOR SYSTEM AND JACK SUPPORTS MAXIMUM MOMENTS & SHEARS

MEMBER	MAX. MOM.-FT.-KIPS. D	L+I	TOTAL	MAX. REACTION-KIPS. D	L+I	TOTAL	SECTION
Interior Stringer	57	194	251	8.8	37.3	46.1	21" w 63# (Silicon)
Curb Stringer	68	158 △	226	10.5	27.2 △	37.7	21" w 59# (Silicon)
Interior Floor Beam	73	241	314	48.8	61.4	110.2	24" w 74# (Silicon)
End Floor Beam	41	251	292	27.0	64.2	91.2	24" w 74# (Silicon)
Jacking Beam @ Lo (Steel only)			181.5			60.5	33" w 125# (Carbon)
" " @ Lo (Full D.L.)			548.1			182.7	33" w 125# (Carbon)
" " @ L8 (Steel only)			780			260.0	33" w 125# (Carbon)

NOTATIONS

D = Total Dead Load Stress (Steel + concrete Floor Slab)
Ds = Dead Load Stress (Steel only)
L = Live Load Stress (H-20)
I = Impact Stress.

W1 = Stress for 30# wind on 2 Trusses, 2 Handrails, 1 curb & 1 Stringer
W2 = Stress for wind of 300#/Lin. Ft. on loaded chord and 150#/Lin. Ft. on unloaded chord.
* Asterisk denotes figures applying to Span 11 only. All other calculations apply as indicated.
△ Assumes outer truck wheel on top of sidewalk.

STANDARD	COMPUTED	P. Wilson
	CHECKED	A.K. Thomas
	DRAWN	P.M.
	CHECKED	A.R.J.
SPECIAL	ASSEMBLED	
	CHECKED	

Rev 2-7-46 ADM: A.R.J.

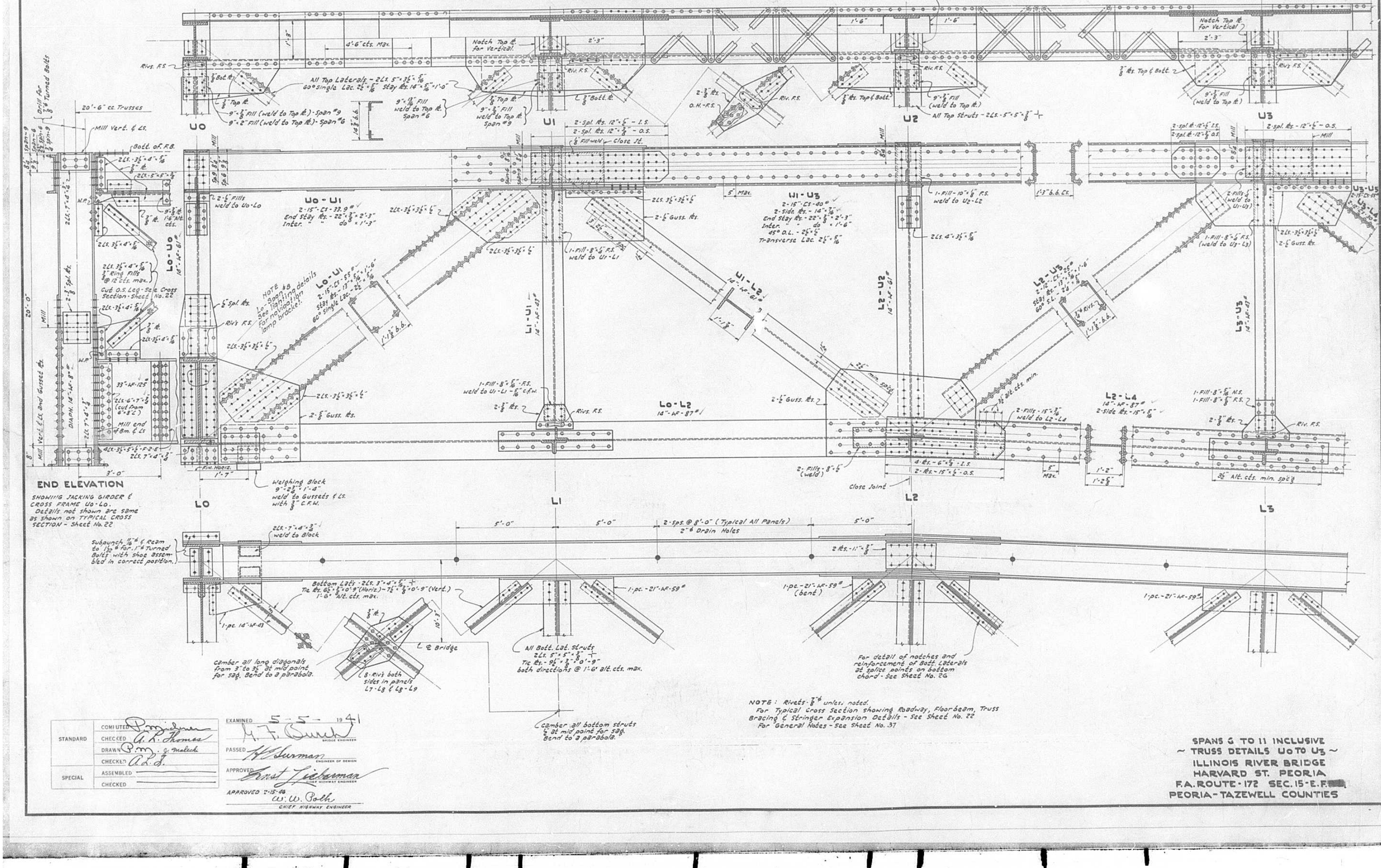
EXAMINED 5-5-1941
H. T. Cowell BRIDGE ENGINEER
PASSED W. P. Burman ENGINEER OF DESIGN
APPROVED Ernest Greenman STATE HIGHWAY ENGINEER
APPROVED 2-15-46 W. W. Polk CHIEF HIGHWAY ENGINEER

SPANS 6 TO 11
STRESS AND DESIGN DATA
ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F. A. RTE. 172 - SECTION 15 E-F
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 11
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F RL



END ELEVATION

SHOWING JACKING GIRDER & CROSS FRAME Uo-Lo. Details not shown are same as shown on TYPICAL CROSS SECTION - Sheet No. 22

STANDARD	COMPUTED	Pravidman
	CHECKED	A. K. Thomas
	DRAWN	P.M. J. Malecki
	CHECKED	A.L.S.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
H. F. Quirk
BRIDGE ENGINEER

PASSED H. P. Sturman
ENGINEER OF DESIGN

APPROVED Ernst Lieberman
CHIEF HIGHWAY ENGINEER

APPROVED 2-15-46
A. W. Peth
CHIEF HIGHWAY ENGINEER

NOTE: Rivets - 7/8" unless noted.
For Typical Cross Section showing Roadway, Floor-beam, Truss Bracing & Stringer Expansion Details - See Sheet No. 22
For General Notes - See Sheet No. 37

SPANS 6 TO 11 INCLUSIVE
~ TRUSS DETAILS Uo TO U3 ~
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE - 172 SEC. 15-E.F.
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	43
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 12
63 SHEETS SEC. 15-E
70 " SEC. 15-D-E P.L

U4 U5 U6 U7 U7-U9 U5-U7 U3-U5 U5-U6 U6-L6 U7-L7 U7-L8 U3-L4 L2-L4 L4-L5 L4-L6 L6-L7 L6-L8 L4 L5 L6 L7

SPANS - 6 TO 11 INCL.
- TRUSS DETAILS - U4 TO U7 -
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 SEC. 15-E.F.
PEORIA - TAZEWELL COUNTIES

STANDARD	COMPUTED	Providence	
	CHECKED	A.L. Thomas	
	DRAWN	P.M. Jr Malecki	
	CHECKED	A.L.T.	
SPECIAL	ASSEMBLED		
	CHECKED		

EXAMINED 5-5- 1941 — M.F. Bush, BRIDGE ENGINEER
PASSED — H.G. Summers, ENGINEER OF DESIGN
APPROVED — Ernest Lieberman, HIGHWAY ENGINEER
APPROVED 2-15-45 — W.W. Peth, CHIEF HIGHWAY ENGINEER

EBM-
Rev. 2-7-46 A.L.T.

- NOTE - Rivets - $\frac{7}{8}$" unless noted.
For details of Typical Cross Frames at intermediate panel points See Sheet No. 22
For General Notes - See Sheet # 37

For details of notches and reinforcement of Bott. Lat's at splice points on bottom chord - See Sheet No. 26

BOTT. LAT. STRUTS
2-Ls. - 5" × 5" × $\frac{3}{8}$" +
Tie Rs. - 9$\frac{1}{2}$" × $\frac{3}{8}$" × 0'-9" both directions @ 1'-6" Alt. cts. Max.

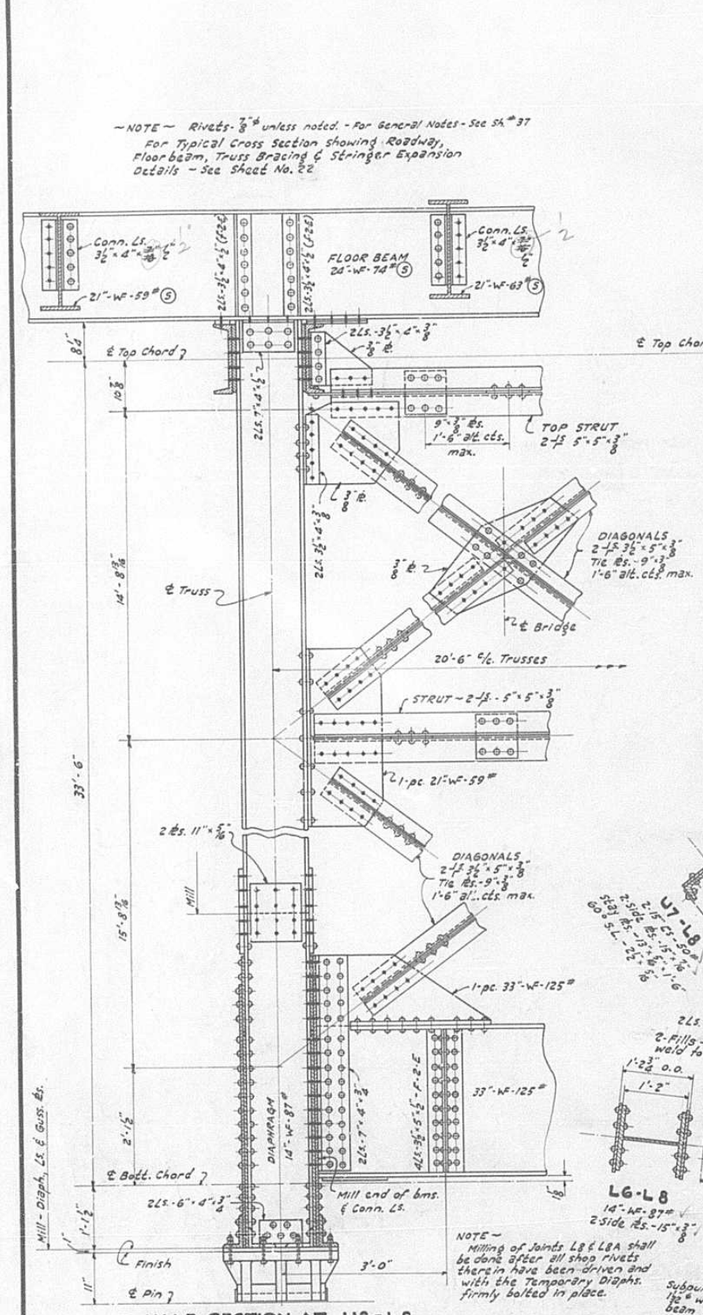
BOTTOM LATERALS
2-Ls. - 3" × 4" × $\frac{5}{16}$" +
Tie Rs. - 6$\frac{1}{2}$" × $\frac{5}{16}$" × 0'-9" (horiz.)
" " - 7$\frac{1}{2}$" × $\frac{5}{16}$" × 0'-9" (vert.)
@ 1'-6" Alt. cts. Max.

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	44
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 699A		

SHEET NO. 13
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F

~NOTE~ Rivets - 7/8" ϕ unless noted. - For General Notes - See Sh. # 37
For Typical Cross Section showing Roadway, Floor beam, Truss Bracing & Stringer Expansion Details - See Sheet No. 22

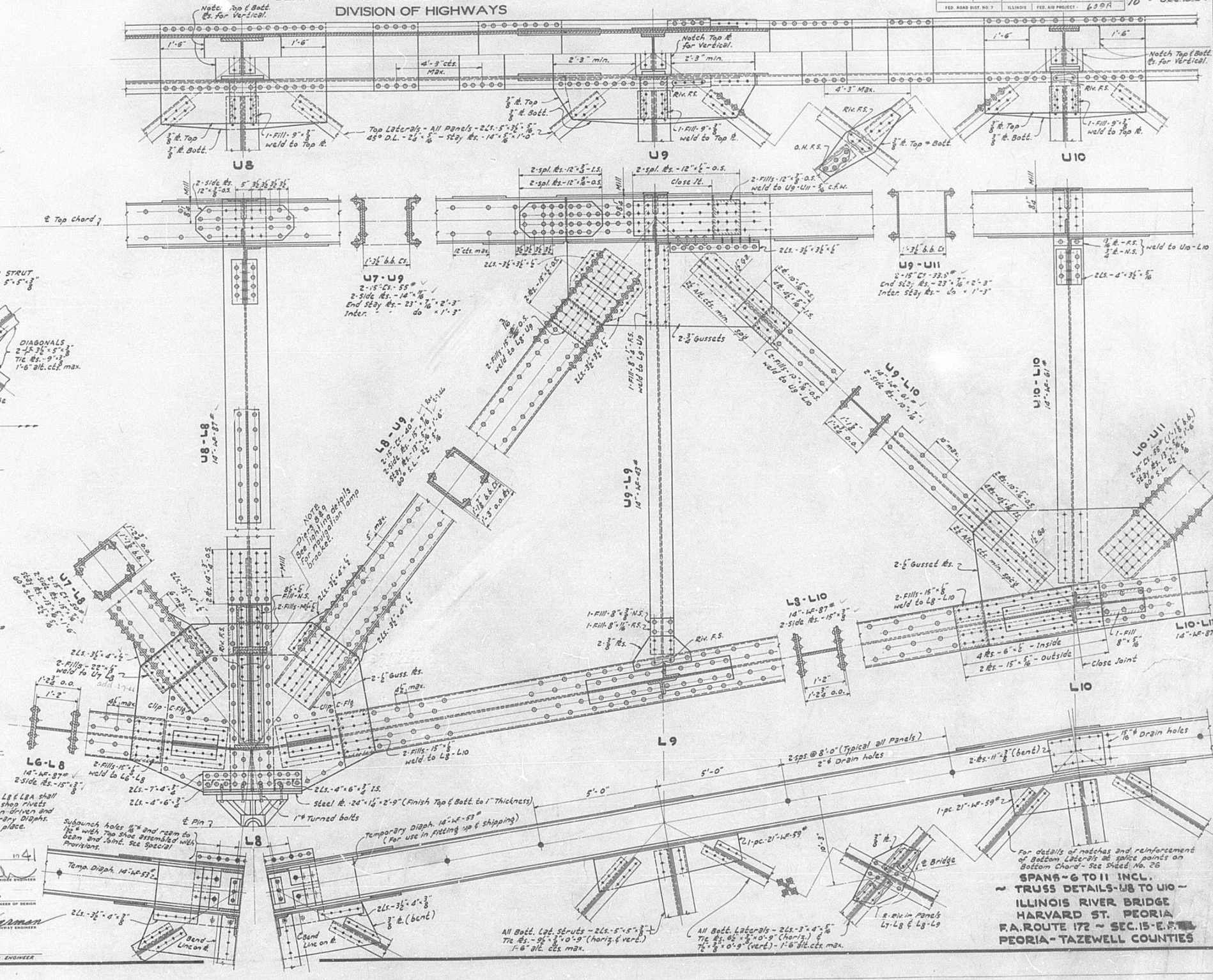


HALF SECTION AT U8-L8

NOTE ~ Milling of joints L8 & L8A shall be done after all shop rivets therein have been driven and with the Temporary Diaphs. firmly bolted in place.

STANDARD	COMPUTED	P.M. Anderson	EXAMINED 5-5-1941
	CHECKED	A. A. Thomas	A. T. Burch BRIDGE ENGINEER
	DRAWN	P.M. - J. Malek	PASSED H. Peterman ENGINEER OF DESIGN
	CHECKED	A. A. T.	APPROVED Ernest Fisherman CHIEF HIGHWAY ENGINEER
SPECIAL	ASSEMBLED		APPROVED 2-15-46 W. W. Pack CHIEF HIGHWAY ENGINEER
	CHECKED		

Rev. 2-7-46 R.P.J.

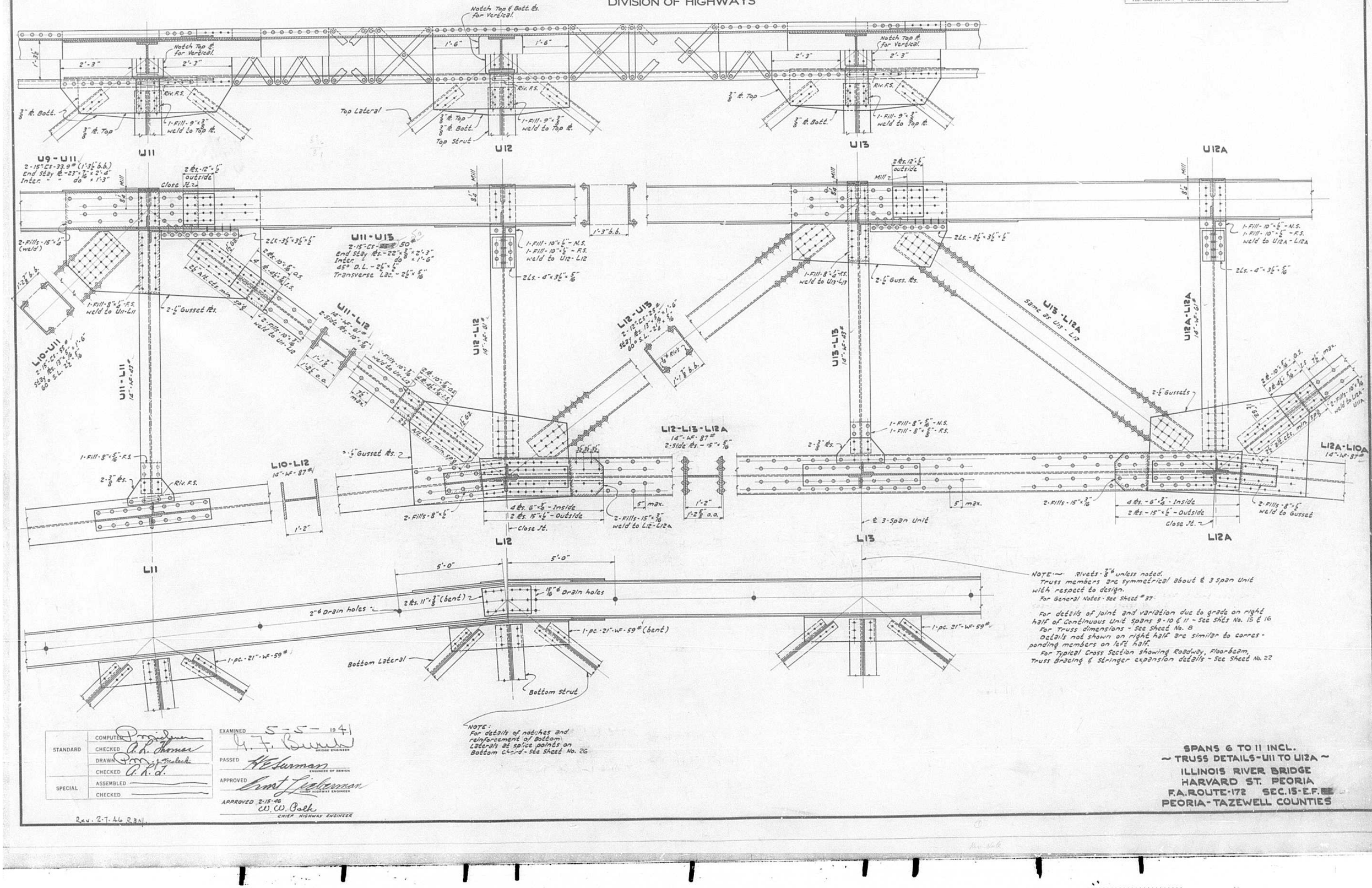


SPANS - 6 TO 11 INCL.
~ TRUSS DETAILS - U8 TO U10 ~
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 ~ SEC. 15-E.F.
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	45
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: 699 A		

SHEET NO. 14
63 SHEETS SEC 15-E
70 " SEC 15-D F & L



NOTE:— Rivets - ⅞" ø unless noted.
Truss members are symmetrical about ℄ 3 Span Unit with respect to design.
For General Notes - See Sheet # 37

For details of joint and variation due to grade on right half of Continuous Unit Spans 9-10 & 11 - See Shts No. 15 & 16
For Truss dimensions - See Sheet No. 8
Details not shown on right half are similar to corresponding members on left half.
For Typical Cross Section showing Roadway, Floorbeam, Truss Bracing & Stringer expansion details - See Sheet No. 22

NOTE:
For details of notches and reinforcement of Bottom Laterals at splice points on Bottom Chord - See Sheet No. 26

STANDARD	COMPUTED	
	CHECKED	A. L. Thomas
	DRAWN	
	CHECKED	A. L. T.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
H. F. Burch
BRIDGE ENGINEER
PASSED H. E. Sarman
ENGINEER OF DESIGN
APPROVED Ernst Lieberman
CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46 W. W. Bolt
CHIEF HIGHWAY ENGINEER

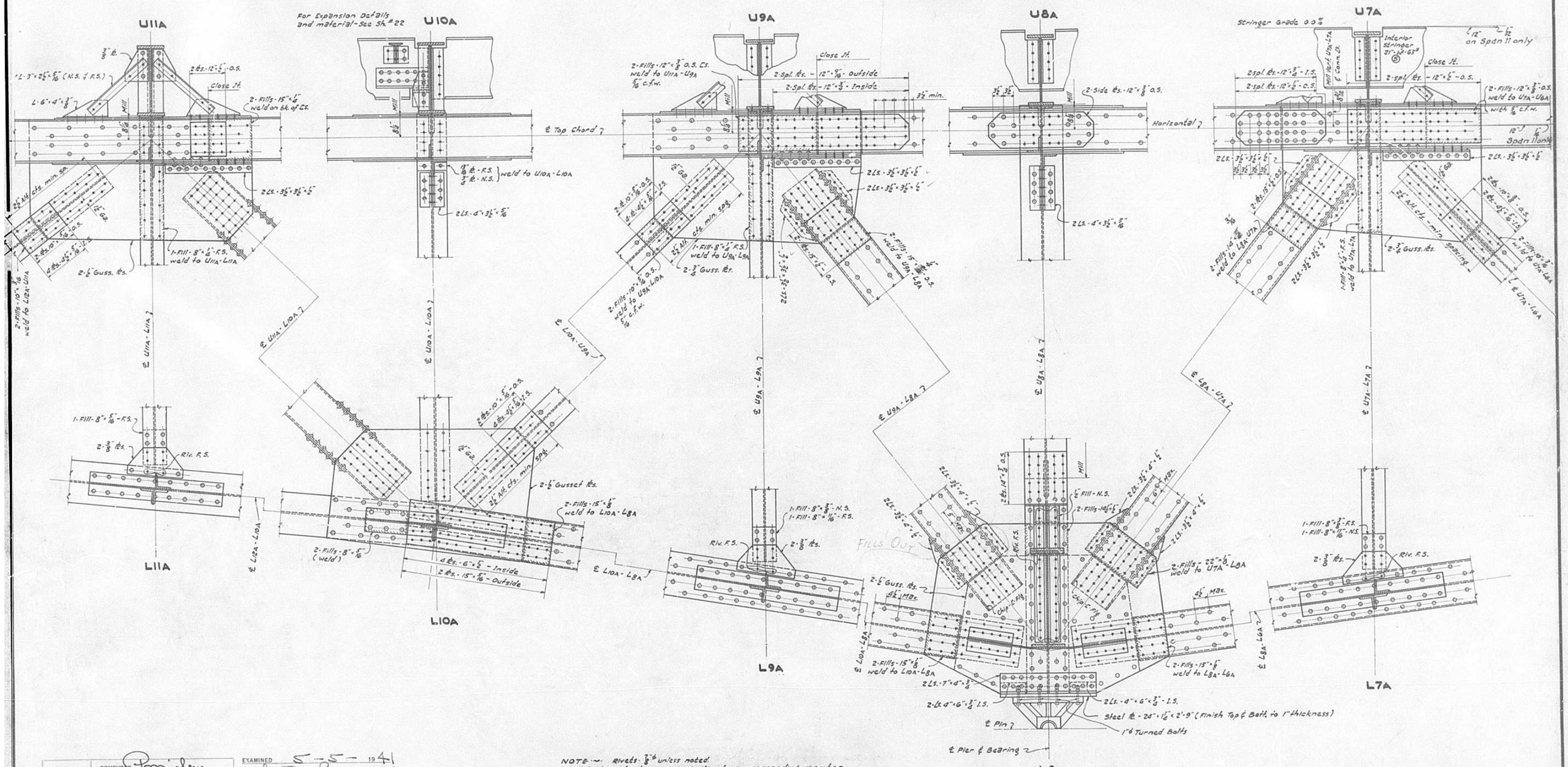
Rev. 2-7-46 R.B.N.

SPANS 6 TO 11 INCL.
~ TRUSS DETAILS - U11 TO U12A ~
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE-172 SEC. 15-E.F.
PEORIA-TAZEWELL COUNTIES

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 F	Peoria Tazewell	97	A6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 15
63 SHEETS Sec 15E
70 - SEC. 15-D-E-F-RL

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



STANDARD	COMPUTED	P.J. Nielsen
	CHECKED	A. R. Thomas
	DRAWN	P.M. & Malecki
	CHECKED	A.R.T.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
H. F. Burnett BRIDGE ENGINEER
PASSED H. E. Sherman ENGINEER OF DESIGN
APPROVED Ernest Lieberman ASSISTANT HIGHWAY ENGINEER
APPROVED 7-15-46 W. W. Bath CHIEF HIGHWAY ENGINEER

Rev. 7-7-48 RBM-LLC

NOTE:- Rivets ⅞" ϕ unless noted.
Details not shown are similar to corresponding member on left half of truss.
For typical cross section showing Roadway, Floorbeam, Truss bracing and Stringer expansion details - See Sheet No. 22
For "General Notes" See Sheet # 37

SPANS - 6 TO 11 INCL.
- TRUSS DETAILS - U11A TO U7A -
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE - 172 SEC. 15-E.F.RL
PEORIA - TAZEWELL COUNTIES

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

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

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
FA 172	15 D E,F	Peoria	FA 15	63
		Tazewell	94 53	SHEETS
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	202A	70

For sizes and materials of light pole brackets see Sheet No. 52

For Expansion Details & Material Sec. 5A & 22

For details of Reinforcement See Sheet No. 61 or 62

CATION OF LIGHT POLE BRACKETS

ANS 6-7-8 NORTH TRUSS PANEL POINTS U6 U7 U8 - U6A

ANS 6-7-8 SOUTH TRUSS U6 - U7 - U8 - U8A

ANS 9-10-11 NORTH TRUSS U8 - U9 - U10 - U10A - U4A

ANS 9-10-11 SOUTH TRUSS U1 - U2 - U3 - U4 - U1A

ANS 1-2-3 NORTH TRUSS U4 - U5 - U6 - U6A - L6A

ANS 1-2-3 SOUTH TRUSS U1 - U2 - U3 - U1A

SHOWING TYPICAL BRACING AT POINTS
2-4-8-10-SPANS 15-17 AND POINTS 2-4-6-10-12-SPANS 6-11

TYPICAL FOR POINTS 1-3-5-7 ETC.

Typical Cross Section - Deck Truss Spans 6-11 Incl. & 15-16-17

FOR VARIATION DUE TO STRINGER EXPANSION SEE SECTION ON THIS SHEET. TRUSS CONNECTIONS SHOWN FOR SPANS 6-11 INCL. FOR TRUSS CONNECTIONS FOR SPANS 15-16-17 SEE SH. No. 29

NOTE:— Rivets - 7/8" unless noted.
Details not shown are similar to corresponding members
For typical cross section showing Roadway, Floorbeam, and Stringer Expansion Details - See Sheet #22
Details on Top Chord and Stringers are for SPAN-11 only.
For General Notes - See Sheet #37

Section A-A

TYPICAL FOR ALL PANEL POINTS EXCEPT AT EXPANSION POINTS AS LISTED BELOW.

Section at Floor Beams

4-8-8A-4A - Spans 15-16-17 — 2-6-10-10A-6A-2A-Spans 6-11 Incl.

Sec. B-B

Section C-C

Note: Rivets 7/8" unless noted
For General Notes - See Sheet No. 37

SPANS 6-11 INCL. & SPANS 15-16-17
CROSS-SECTION-DECK TRUSSES
ILLINOIS RIVER BRIDGE — SPANS 6 TO 11 INCL
HARVARD ST. - PEORIA — ILLINOIS RIVER BRIDGE TRUSS DETAILS
F. A. RTE. 172 — SECTION 15 D E,F — F.A. ROUTE 172 — SEC. 15
PEORIA-TAZEWELL COUNTIES — PEORIA-TAZEWELL COUNTIES

STANDARD / SPECIAL

COMPUTED D.B. Murphy — EXAMINED — EXAMINED
CHECKED C.A. Bierman — CHECKED — CHECKED
DRAWN T.E.M. — DRAWN — CHECKED
CHECKED R.H.S. — CHECKED — ASSEMBLED
ASSEMBLED — CHECKED — CHECKED

HIGHWAY TRAFFIC ENGINEER

PASSED C.A. Bierman — PASSED — APPROVED
APPROVED 2-13-46 W.W. Polk — APPROVED 2-15-46 W.W. Polk

ENGINEER OF DESIGN — DIVISION OF HIGHWAYS ENGINEER — CHIEF HIGHWAY ENGINEER

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

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

Diaphragm "A" - 10" wf 26# - See Detail-Sheet # 17
Diaphragm "B" - 10" Std. I 35# - See Detail-Sheet # 22

PLAN - TOP BRACING AND FLOOR SYSTEM

SHOWING STRESSES IN DIAGONAL BRACING DUE TO 150 POUNDS PER LINEAL FOOT

ELEVATION OF TRUSS

PLAN - BOTTOM CHORD BRACING

26'-0" Between Curbs

SHOWING STRESSES (IN KIPS) IN DIAGONAL BRACING DUE TO 150 LBS. PER LINEAL FOOT

FLOOR SYSTEM AND JACK SUPPORTS MAXIMUM MOMENTS AND SHEARS

MEMBER	MAXIMUM MOMENTS FOOT KIPS D	L	I	MAXIMUM REACTION KIPS D	L	I	Item Details of SECTION
Interior Stringer	57	94	28	8.8	37.5	10	2 wf 59# @ 5'-0" Ctrs.
Curb Stringer	68	108	28	10.5	37.5	11	2 wf 59# @ 5'-0" Ctrs.
Interior W.F. Floor Beam	73	241	28	14.8	41.4	13	24 wf 76# @ 6'-6" Ctrs.
Fake Floor Beam	74	251	28	15.0	41.5	13	24 wf 76# @ 6'-6" Ctrs.
Jacking Beam at Lo (Steel only)	19						10 wf 49#
Jacking Beam at Lo (Steel & C.I.)	30						10 wf 49#
Jacking Beam at Lo (Steel only)	19						10 wf 49#

D = Dead Load
L = Live Load + Impact

SECTION A-A

DETAIL END RAIL POST AT Uo - SPAN No. 6

DETAIL HANDRAIL-END SECTION PANEL Uo TO U1 - SPAN # 6

DETAIL TYPICAL INTERMEDIATE HANDRAIL SECTION

DETAIL HANDRAIL-TYPICAL END SECTION ADJACENT TO FLOOR BEAM

PROFILE SHOWING VERTICAL ALIGNMENT OF ROADWAY HANDRAIL ON SPANS 6 TO 11 INCL.

HALF CROSS SECTION THROUGH MIDPOINT OF EACH PANEL
HALF CROSS SECTION THRU THIRD POINTS - SIMILAR EXCEPT AS SHOWN

SCALE 3/4" = 1'-0"

SHOP CAMBER DIAGRAM

SHOWING LOWER CHORD BLOCKING AND FABRICATED LENGTHS OF MEMBERS AFTER CORRECTING FOR DEFORMATIONS DUE TO FULL D.L.

BILL OF MATERIAL - SPANS 15-16-17

Sec. 15-E-F-P	Structural Steel (Carbon)	LBS	650,520
Sec. 15-E-F-P	Structural Steel (Silicon)	LBS	208,680

COMPUTED	R.A. Murphy	CHECKED	
DRAWN	R.A.M.	CHECKED	
CHECKED	R.A.M.	CHECKED	
ASSEMBLED		CHECKED	

CHECKED — PASSED — ENGINEER OF DESIGN
APPROVED — CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46 W. W. Peik — CHIEF HIGHWAY ENGINEER

SPANS 15-16-17 INCL. - HANDRAIL DET
FRAMING PLAN AND SECTIONS
ILLINOIS RIVER BRIDGE
HARVARD-HOOPESTON-PEORIA
F. A. RTE. 72 SECTION 15-E-F
PEORIA - TAZEWELL COUNTIES

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

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

SHEET NO. 24

ERECTION BRACING: Braces are to be removed as soon as trusses are seated on adjacent piers

Subdrill 7/8" ø and ream for 1" ø Turned Bolts while assembled with lower chord

Drill holes in field for 7/8 ø bolts

Crown Elev. ℄ Pier #6 = 498.60
Crown Elev. ℄ Pier #8 = 498.50

Details of top shoe not shown here are same as top shoe shown for Piers #5 and #10

Subdrill 7/8" ø and ream to 1" ø for 1" ø Turned bolts with top assembled in correct position with (prints L8 & L8A - See Special Provisions

Finish

Cored Holes (Horizontal) thru U0

2.04% Grade

Fill with concrete

Pipe jack (2 on each side)

Pipe jack (2 on each side) For detail see Sheet No. 5a

Steel Bearing ℞ 2-10 - 1.8 (Fin too)

1½" ø Anchor Bolts in place

Pipe Sleeve furnished & set by Contr. 19-8

Levelling screws

Sockets 6¾ · 2'3" 6¾

Steel Brg ℞ 3'-4½" x 3½" x 4'-1" (Finish Top Surface)

Drill 1⅞" ø for 1½" ø anchor bolts

5" x 5" x 5" lbs - Recessed to fit levelling screws

2" ø Levelling Screws 1'-0" long Rounded ends - greased

1½" ø Anchor Bolts in place.

Bottom of Lo & LoA erection & adjustment

Steel Pipe

Cored holes

Drill 1⅞" ø for 1½" ø Anchor Bolts

Drill and tap for 2" ø Levelling Screws

3" Grout Holes

Not including Points 18 & 0

Spans 6 to 11 Incl.

DETAILS OF EXPANSION BEARING AT Lo & LoA AT PIERS #4-7-10

MATERIAL FOR ONE BEARING ASSEMBLY - 8 REQUIRED

1 CAST STEEL - TOP SHOE
1 CAST STEEL - ROCKER
1 STEEL BRG 12" - 20" x 3" x 2'-10" (FINISH TOP AS SHOWN)
1 5" ø PIN AND TWO NUTS (STANDARD)
4 - 1½ ø LEVELLING SCREWS
6 - Ø8 - 4" - 1'-0" - 4 (RECESSED)
2 - ANCHOR BOLT NUTS (AS DETAILED WITH COTTER KEY)
1 - GUIDE BAR (as detailed)

Holes for 1½" ø Anchor Bolts

Guide bar

Piers-4-7-10

1½" Levelling Screws - 4 Req'd

4 Tap holes for 7/8" ø Erection Bolts

2'-10 Piers-4-7-10

Spherical end

DETAIL OF TOOTH BAR PIER-10 ONLY

2" x 2" Tooth x 3½" weld to 3rg ℞ - ℄ cont. weld

Nov 21 '27

LAYOUT OF TRUSS SPANS - 15 - 16 - 17

(Showing truss dimensions in ft. & Lever arms for Panels)

Dimensions shown do not include Camber

Scale - 1" = 25'

DETAIL OF EXPANSION BRGS. AT PIERS # 6 & # 8

MATERIAL FOR ONE BEARING ASSEMBLY SHOWN
4 Assemblies Required

Cast Steel Rocker

Slotted Hexagonal Nut welded to 4 ø x ½" cut steel washer with ¼ c.i.w. - drill anchor bolt for ⅞" cotter key Nut, washer and key to be furnished by Contr. for Sec 15-E, set by Contr. for Sec 15-E, included in ℄ Pier - Stainless Steel

Tangent to Curve

¼" clear with rocker normal

¼" cont. fillet weld

Point 0 1 2 3 4 5

Finish

DETAIL ANCHOR BOLT-NUT LOCK & OPENING IN ROCKER

1½" ø Anchor Bolt

DETAILS OF SEGMENTAL ROCKERS TOOTH BARS & LOCKING PLATES

SCALE: 2" = 1'-0"

REACTION INFLUENCE LINES

Scale - 1" = 25' Horizontal
1" = 3 Kip Vertical

℄ Casting & Roller

2 x 2" Tooth Bar Spherical Ends

See guide bar detail for dimensions

Guide bar

Finish

SECTION THROUGH GUIDE BAR

Scale: Full Size

	Net Rs
Span 1	+ 3.4253
Span 2	+ 4.2487
Span 3	Finish to dash
Span 1&2	+ 7.0440
2&3	+ 2.7953
1&2	+ 7.6740

BILL OF MATERIAL

Spans 6 to 11 Incl.

Sec 15-E P.R.	CAST STEEL	Rg	2.86	35,530
	STRUCTURAL STEEL (CARBON)		2.86	31,330

Rings, Strut, Stay - Includes Pins, Nuts, Bolts, Brgs, Rollers, Tooth Bars, Bearing Pls. Levelling Screws, etc.

2 Bars - 3" x ⅝"

2 LOCK PLATES - 8" x ½" - 1'-5½"

Drill after rockers have been adjusted for temperature and truss deformation. Information for drilling will be furnished to the fabricator when landing temperature has been determined by the Erector. The cross hatched portion shall be flame cut as soon as landing has been made.

Finish all over

COLLAR FOR PEDESTALS PIERS 5-6-8&9 16 Reqd.

DETAIL OF FIXE... AT PIERS #5...

MATERIAL FOR ONE A...
4 Assemblies Re...

-NO1...

All castings shall be ... Grade B." The weight of ... cluded in the item of "Cas... Weight of all other materia... in Item of "Structural St...

The shop shall scribe ... ends of all rockers, rollers, ...

For details of pipe ja... All bearing plate bolts ... or equal cement concrete ... after all bearings have ac... final elevation. Cast shall ... for expansion of rockers, st... grouted.

DESIGN PANEL LOADS - KIPS

Point	Steel*	Concrete	Total
0	12.73	20.36	33.09
1	19.18	40.71	59.89
2	19.26	40.71	59.97
3	19.23	40.71	59.94
4	21.61	41.07	62.68
5	21.94	40.71	62.65
6	20.10	40.71	60.81
7	19.82	40.71	60.53
8	21.44	41.07	62.51
9	19.48	40.71	60.19
10	19.47	40.71	60.18
Net Rs	28.05	59.29	87.34
Net Rs	148.21	297.48	445.89

* Includes 45 lbs. ... per panel for power cable

DETAIL OF PIN ... FOR BEARING A...
SCALE: 3" ...

STANDARD	COMPUTED	C.B. Murphy	EXAMINED		
	CHECKED	C.W. Baldwin	CHECKED	C.L. Romer	
	DRAWN	R.B.M. & M.L.	PASSED	H.C. Turman	
	CHECKED	R.W.B.	CHECKED	C.L. Romer	
SPECIAL	ASSEMBLED		APPROVED	Ernest Hellerman	H.C. Turman
	CHECKED				

APPROVED 2-15-46 W.W. Bolk CHIEF HIGHWAY ENGINEER

APPROVED 2-15-46 H.C. Turman ENGINEER OF DESIGN

SCALE: FULL SIZE

SPANS 15-16-17
TRUSS LA...

ILLINOIS RIVER BRIDGE
HARVARD-PEORIA ROAD
F.A. ROUTE 173 - SECTION 15-E
PEORIA - TAZEWELL COUNTY

DIVISION OF HIGHWAYS
DIVISION OF HIGHWAYS

E = 30,000 KIPS/SQ IN.

MEMBER	SECTION	AREA – SQ. IN. GROSS	AREA – SQ. IN. NET (FOR ALLOWABLE STRESS)	AREA – SQ. IN. EFFECTIVE FOR DEFL	LENGTH FT.	RADIUS OF GIRATION	I/r	DEAD LOAD STRESSES – KIPS STEEL SUPER	DEAD LOAD STRESSES – KIPS CONCRETE FLOOR	DEAD LOAD STRESSES – KIPS TOTAL DEAD LOAD	LIVE LOAD STRESSES – KIPS H-20 + I.M.	WIND STRESSES – KIPS 15# WIND + 100% W.L.L. = W2	WIND STRESSES – KIPS 30# WIND + W1	TOTAL STRESSES – KIPS D + L	TOTAL STRESSES – KIPS D + L + W2	TOTAL STRESSES – KIPS D + W1	UNIT STRESSES – KIPS/SQ.IN. D + L	UNIT STRESSES – KIPS/SQ.IN. D + L + W2	UNIT STRESSES – KIPS/SQ.IN. D + W1	ALLOWABLE UNIT STRESSES – KIPS/SQ.IN. D + L	ALLOWABLE UNIT STRESSES – KIPS/SQ.IN. D + L + W2	ALLOWABLE TOTAL STRESS KIPS	CORRECTION FOR CAMBER THEORETICAL CORRECTION – DEFLECTION	CORRECTION FOR CAMBER FABRICATED LENGTH FT.-IN.	DEFORMATION STEEL WT. DST	MEMBER
U0-U1	2 PL-12-20.7#	12.06		12.06	26.005	4.64	67.7	0	0	0	0	±11	±11	0	±0.91	±0.91	0	±0.91	±0.91	+18.0 -13.65		-167	0	26'-0 3/32"	-.0002	0	U0U1
U1-U3	2 CAR CS 2 PL-12-30.4#	27.2		27.2	52.011	3.93	79.4	-53	-123	-176	-176	±17	±17	-352	-369	-193	-12.94	-13.56	-7.10	-18.0		-165	+0.112	52'-0 3/32"	+.0098	-.0034	U1U3
U3-U5	2 CAR CS 2 PL-12-20.7# 2 WEB PL-12 x 7/16	38.88	31.88	38.88	52.011	4.61	67.7	+119	+244	+357	+202	±14	±14	+559	+573	+497	+14.38	+14.73	+12.78	+18.0		+559	-.0181	51'-11 3/32"	-.0162	+.0081	U3U5
U5-U6	2 PL-12-20.7# 2 PL-12-30.4# 2 WEB PL-11 x 7/16	32.06		32.06	52.011	4.61	67.7	-78	+24	-54	-82	±24	±24	-58	-82	+44	-4.80	-6.80	+4.79	-18.85		-167	-.0103	52'-0 3/32"	+.0032	-.0032	U5U6
U6-U8	2 CAR CS 2 PL-12-30.4# 2 WEB PL-11 x 7/16	27.2		27.2	52.011	3.93	79.4	-50	-111	-161	-178	±23	±23	-339	-362	-184	-12.46	-13.31	-6.76	-13.42		-165	+.0103	52'-0 3/32"	+.0098	-.0032	U6U8
U8-U9	do				52.011					+20																U8U9
U9-U9A	Same as U8-U1				52.011					+357																U9U9A
U9A-U8A	Same as U9-U8				52.011					+18 catwalk																U9AU8A
U8A-U6A	Same as U1-U3				52.011																					U8AU6A
U6A-U5A	Same as U0-U1				26.005																					U6AU5A
L0-L2	2 WF 65#	19.11	16.69	19.11	52.011			+40	+94	+134	+115	±26	±26	+249	+275	+160	+14.91	+16.47	+9.59	+18.0		+300	-.0122	51'-11 3/32"	-.0136	+.0086	L0L2
L2-L4	do	19.11	16.69	19.11	52.246			+54	+79	+133	+76	±31	±31	+209	+309	+144	+16.65	+18.51	+8.62	+18.0		+300	-.0103	52'-2 1/32"	-.0096	+.0031	L2L4
L4-L6	12 WF 65# 2 PL-12 x 1/2	28.11	27.33	28.11	52.621	3.17	99.6	-55	-123	-178	-131	±31	±41	-309	-340	-219	-11.31	-12.44	-8.01	-12.5		-342	-.0111	52'-7 31/32"	+.0118	-.0034	L4L6
L6-L8	do	28.11	27.33	28.11	52.461	3.17	99.3	-57	-127	-184	-124	±17	±25	-308	-325	-209	-11.27	-11.89	-7.65	-12.5		-342	-.0114	52'-5 31/32"	+.0104	-.0035	L6L8
L8-L10	12 WF 65#	19.11	16.69	19.11	52.036			+38	+73	+106	+143	±36	±36	+249	+285	+142	+14.91	+17.06	+8.51	+18.0		+300	-.0096	52'-0 3/32"	-.0100	+.0030	L8L10
L10-L8A				19.11	52.158			+38	+73	+106													-.0096	52'-1 1/32"	-.0096	+.0030	L10L8A
L8-L8A				28.11	52.784	3.17	100.0	-37	-128	-163													+.0116	52'-9 7/32"	+.0103	-.0036	L8L8A
L8A-L8A				28.11	52.938	3.17	99.1	-50	-123	-177													+.0110	52'-8 31/32"	+.0110	-.0034	L8AL8A
L8A-L2A				19.11	52.083			+34	+79	+113													-.0108	52'-0 1/32"	-.0096	-.0031	L8AL2A
L2A-L0A	SPAN – 9			19.11	52.011			+40	+94	+114	SPAN – 10								SPAN – 11				-.0122	51'-11 3/32"	-.0136	+.0086	L2AL0A
L0-U1	2 CAR CS 2 PL-12-30.4# 2 Cov. PL-11 x 5/8	28.77	25.02	27.53	30.778	4.60	86.2	-48	-110	-158	-154			-312			-12.46			-13.35		-175	-.0059	30'-9 1/32"	+.0059	-.0018	L0U1
U1-L2	16" WF 40#	11.77	9.71	11.77	31.358	4.94	104.0	+16	+35	+51	+105			+156			+16.06			+18.0		-175	+.0045	31'-4	-.0038	+.0014	U1L2
L2-U3	12 WF 40#	11.77	9.71	11.77	30.778			+23	+52	+75	+32			+147			+17.20			+18.0		-175	-.0066	30'-9 1/32"	-.0072	+.0020	L2U3
U3-L4	2 PL-12-30.4# 2 PL-12-30.4# 2 PL-10 x 1/2	25.83	22.08	24.59	33.758	4.73	84.6	-48	-114	-163	-126			-289			-13.08			-13.17		-291	+.0075	33'-9 3/32"	+.0076	-.0022	U3L4
L4-U5	2 PL-12-30.4# 2 WEB PL-10 x 1/2	28.77	25.02	27.53	33.091			+65	+126	+191	+148			+339			+17.38			+18.0		-347	-.0099	33'-0 3/32"	-.0103	+.0031	L4U5
U5-L6	2 PL-12-30.4# 2 Cov. PL-12 x 5/8 2 WEB PL-12 x 5/8	39.21	34.83	37.77	38.600	4.38	105.7	-87	-183	-270	-158			-428			-12.28			-12.2		-425	+.0092	38'-7 5/32"	+.0094	-.0030	U5L6
L6-U7	do	39.21	34.83	37.77	37.823	4.38	103.6	-83	-172	-255	-161			-416			-11.93			-12.32		-429	+.0085	37'-9 1/32"	+.0077	-.0028	L6U7
U7-L8	12 WF 58# 2 PL-12-30.4# 2 CAR CS 2 Cov. PL-11 x 5/8	28.77	25.02	27.53	32.482	4.60	86.5	-48	-109	-157	-146			-303			-12.45			-12.5		-425	+.0062	32'-5 27/32"	+.0050	-.0019	U7L8
L8-U9	12" WF 45#	13.24	10.94	13.24	31.358			+20	+47	+67	+110			+177			+17.45			+18.0		-365	-.0053	33'-1 7/32"	-.0046	+.0016	L8U9
U9-U9A	do	13.24	10.94	13.24	30.778			+20	+46	+66				+175			+17.20			+18.0		-365	-.0051	30'-9 1/32"	-.0046	+.0016	U9U9A
U9A-L8A	Same as L8-U9	28.77	25.02	27.53	33.128	4.60	86.4	-48	-112	-160				-309			-13.18			-13.27		-425	+.0064	33'-1 7/32"	+.0019	-.0019	U9AL8A
L8A-U9A	Same as U7-L8	24.34	20.29	24.34	32.482			+64	+139	+203	+144			+347			+17.10			+18.0		-365	-.0090	32'-5 1/32"	-.0080	+.0028	L8AU9A
U9A-L6A	Same as L6-U7	39.21	34.83	37.77	38.600	4.38	105.7	-84	-176	-260	-163			-423			-12.14			-12.2		-425	+.0089	38'-7 5/32"	+.0094	-.0030	U9AL6A
L6A-U8A	Same as U6-L8	39.21	34.83	37.77	37.823	4.38	103.6	-85	-180	-265	-154			-419			-12.02			-12.32		-429	+.0089	37'-9 31/32"	+.0077	-.0028	L6AU8A
U8A-L8A	Same as U8-L8	19.29	23.09	33.758				+66	+144	+210	-124			+344			+17.82			+18.0		-347	-.0103	33'-8 31/32"	-.0102	+.0032	U8AL8A
L8A-U9A	Same as U9-U8	25.83	22.08	24.59	33.091	4.73	84.0	-48	-111	-159	-124			-283			-12.81			-13.24		-292	+.0067	33'-4 7/32"	-.0064	+.0020	U8AL8A
U9A-L2A	Same as L2-U3	11.77	9.71	11.77	31.358			+29	+53	+70				+170			+15.38			+18.0		-175	+.0043	30'-9 3/32"	-.0044	+.0013	L2AU3
L2A-U1A	Same as U1-L2	11.77	9.71	11.77	30.778	1.94	190.3	+15	+35	+50	+103			+153			+15.38			+18.0		-175	+.0061	31'-4 3/32"	-.0063	+.0019	U3AL0A
U1A-L0A	Same as L0-U1	28.77	25.02	27.53	31.358	4.60	81.8	-49	-112	-161	-157			-318			-12.71			-13.92		-339	+.0074	31'-4 3/32"	-.0063	+.0019	U1AL0A
U0-L0	12" WF 40#	11.77		11.77	17.0	1.94	109.2	-13	-29	-42	-35			-77			-11.12			-12.23		-193	+.0013 @ U0 +.0024 @ L0	17'-0 3/32"	-.0023 @ U0 -.0044 @ L0	+.0006 @ U0 +.0012 @ L0	U0L0
U0-L2	12" WF 53#	15.59		15.59	21.0	2.48 Lower Chord	101.6 Lower Chord	-18	-41	-59	-63			-122			-11.41			-12.41		-193	+.0025	21'-0 3/32"	-.0024	+.0006	U0L2
U6-L6	12" WF 40#	19.11		19.11	28.0	3.02	111.3	-15	Lox 42	-57	-63			-120			-11.9			-11.9		-228	+.0028	28'-0 1/32"	+.0027	-.0007	U6L6
U8-L8	12" WF 40#	11.77		11.77	20.0	1.94	123.7	-13	-42	-55	-63			-118			-11.16			-11.9		-193	+.0021	20'-0 1/32"	+.0026	-.0007	U8L8
U0U1	12" WF 53# 2 PL-12-30.4# 2 CAR CS 2 PL-12-30.4# 2 WEB PL-12 x 1/2	28.77		28.77	24.5 (MAX)	1.94	151.4 (MAX)	L68 +0.095 =	8.0	+5.9	367			+5 (MAX)									+.0003 max	NOMINAL			U0U1 etc U1L1 etc

E Manhole
E Truss
E Pier #7
E Pier #8
E Pier #9
E Pier #10
E Pier #11
E Pier #12
E Brg @ Pier-5
E Brg @ Pier-6
E Brg @ Pier-7
E Brg @ Pier-8
E Brg @ Pier-9
E Brg @ Pier-10
E Brg @ Pier-11
E Brg @ Pier-12
E Lower Chord
E Roadway
E Sidewalk
E Bolts
E Rod
E Wire Rope
E Subway Grating
E Subway Grating
E Subway Grating

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

STATE OF ILLINOIS
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DIVISION OF HIGHWAYS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
15 B	Peoria	94	58
15	Peoria-Tazewell	94	58
ILLINOIS FED. AID PROJECT		600 A	

SHEET NO. 26
SHEET NO. 29
68 SHEETS SEC. 15 B
68 SHEETS SEC. 15
10 " SEC. 15 B-F

TOP VIEW OF TYPICAL UNIT

SECTION D-D

SECTION THRU EXPANSION JOINT

LOCATION SKETCH FOR FINGER EXPANSION UNITS

TYPICAL BOTTOM LATERAL INTERSECTION

TYPICAL TOP LATERAL INTERSECTION

DETAIL "A"

SECTION A-A
SCALE: 3/8" = 1'-0"
10 Typical Units

SECTION B-B
SCALE: 3/8" = 1'-0"

SECTION C-C
SCALE: 3/8" = 1'-0"

SECTION E-E

ENLARGED DETAIL SHOWING DRAINAGE PROTECTION FOR TOP OF BRACKET

NOTES

TABLE OF MATERIAL - EXP. DEVICE AT PIER 1

Mark	Structural Steel (Carbon)	Lbs.	7225

TRUSS DETAILS - U_0 TO U_2 - SPANS 15-16-17
ROADWAY & SIDEWALK EXPANSION DEVICE AT PIER 1
ILLINOIS VARIABLE DEPTH STRINGER
HARWOOD STEEL BRIDGE 15 B-F-P
F. A. ROUTE - SECTION 15 B-C-D-E
PEORIA - TAZEWELL COUNTIES

STANDARD STANDARD	COMPUTED	R. Kennedy	
	COMPUTES CHECKED		
	CHECKED		
	DRAWN	HENRY D. TEPPT	
	DRAWN CHECKED	HENRY D. TEPPT JR.	
	CHECKED	O.K.J.	
SPECIAL SPECIAL	ASSEMBLED CHECKED		
	CHECKED		

EXAMINED 19
PASSED 19
APPROVED 19
APPROVED 19
APPROVED 19

Rev 2-7-46 R.B.M.

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

EXPANSION UNITS REQUIRED

20 TYPICAL UNITS	L = 2'-2 7/8"
2 END UNITS	L = 1'-2"
1 END UNITS	L = 1'-2"
2 END UNITS	L = 1'-4 1/2"

ROUTE NO.	SECTION	COUNTY	SHEETS	NO.	SHEET NO.
FA 77	E	Peoria	44	58	67 SHEET NO. 21 OF SHEETS SEC. 15-E
	F	Peoria	44	58	68 " SEC. 15-E
	D	Tazewell	44	58	69 " SEC. 15-E
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	609A	59	70 " SEC. 15-E

LOCATION SKETCH FOR FINGER EXPANSION UNIT

TOP VIEW OF TYPICAL UNIT

SECTION THRU EXPANSION JOINT AT PIER 10
SCALE: 2" = 1'-0"

SECTION A-A
SCALE 1/8" = 1'-0"

SECTION B-B
SCALE 1/8" = 1'-0"

SECTION C-C
SCALE 1/8" = 1'-0"

DETAIL "A"

DETAIL "B"

DETAIL "C"

SEC. D-D

SECTION E-E

END FLOOR DETAIL AT PIER 10

MATERIAL - EXP. DEVICE AT PIER 10

Structural Steel (Carbon)	Lbs.	3,750

All 2" bars, 3'-2" and over, 1" expansion shall be copper bearing steel conforming to Class "C" as per specification A-7-36.
All 9 cak. head bolts, nuts and washers to be sheradized.
All copper bearing steel and sheradized bolts, nuts and washers to be used in bid item of "Structural Steel - Carbon".
Roadway and sidewalk expansion devices shall be assembled in the shop in their proper position in the two end floor beams (Span #11 and Span #12) and shall be match marked. Expansion device shall not be assembled for shop painting.
1" normal shims between floor beams and expansion device supporting angles. Additional shims shall be arranged up of 1/16", 1/8", 1/4" and 1/2" thickness.
All rivets except as noted.
Asphalt mastic for coating contact surfaces as noted. Asphalt mastic shall be furnished by the contractor and shall be included in the unit price bid for Structural Steel.

Note: Work this item shall include removing existing concrete at ends of floor beams to provide 12" clearance for new expansion device. Provide 12" clearance for new expansion device for 4" D.L. deflection. Adjust Roadway Exp. Device for 4" D.L. Deflection.

NOTE: Rivets shall be countersunk unless otherwise noted. For General Notes see Sheet No. 21

All sidewalk plates shall be Carnegie type M-41 or equal. Long axis of raised treads shall be parallel to ℄ Rdwy.

TRUSS DETAILS U3 TO U5 - SPANS - 15, 16, 17

ROADWAY ILLINOIS RIVER BRIDGE
PEORIA - TAZEWELL COUNTIES

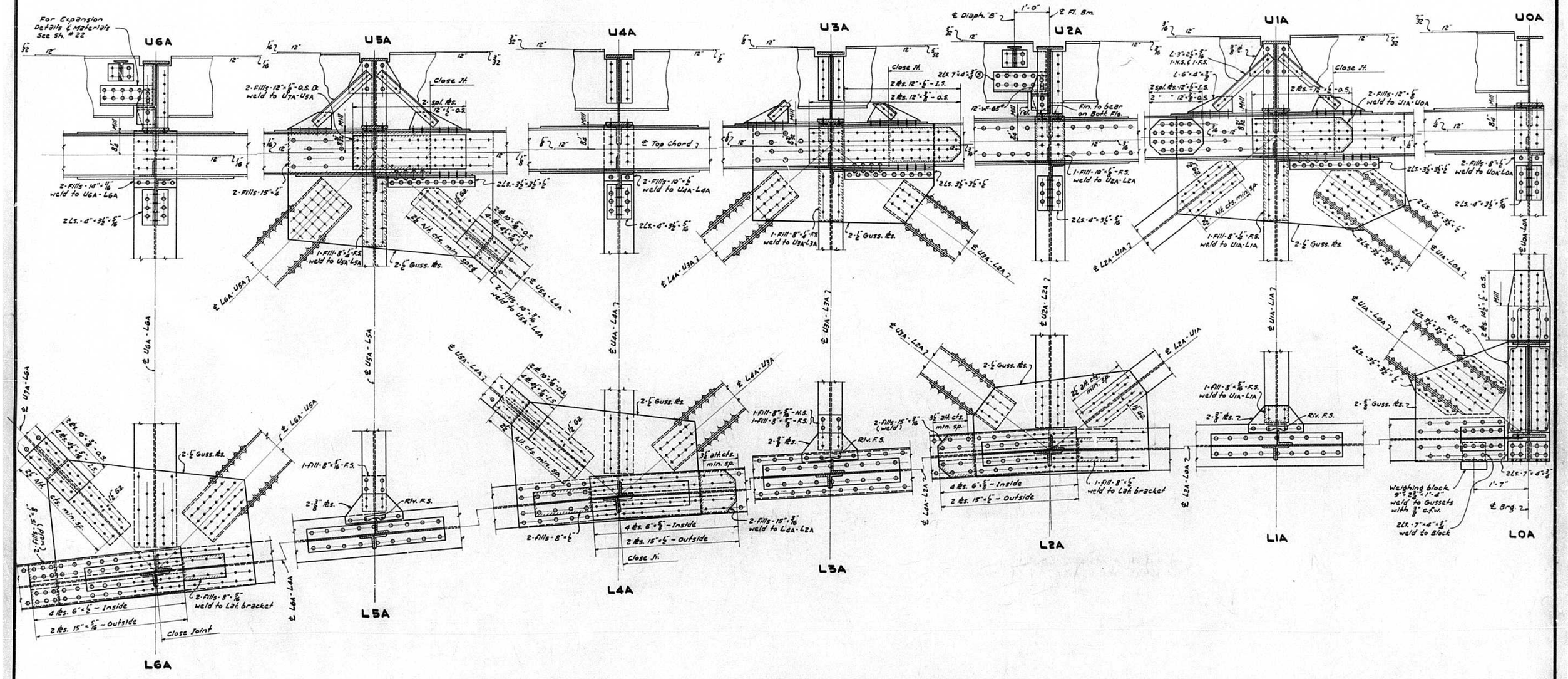
EXAMINED 5-5- 19
PASSED
APPROVED
APPROVED 5-15-46
APPROVED

Rev. 7-7-46 P.B.M.

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	47
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 16
63 SHEETS SEC. 15-E
70 - SEC. 15-D-F, P.L.



STANDARD	COMPUTED	
	CHECKED	L. A. Thomas
	DRAWN	S. M. J. Malecki
	CHECKED	A. R. D.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
H. E. Bilyeu
BRIDGE ENGINEER
PASSED W. Sherman
ENGINEER OF DESIGN
APPROVED Ernest Palmerman
STATE HIGHWAY ENGINEER
APPROVED 2-15-46
W. W. Bolt
CHIEF HIGHWAY ENGINEER

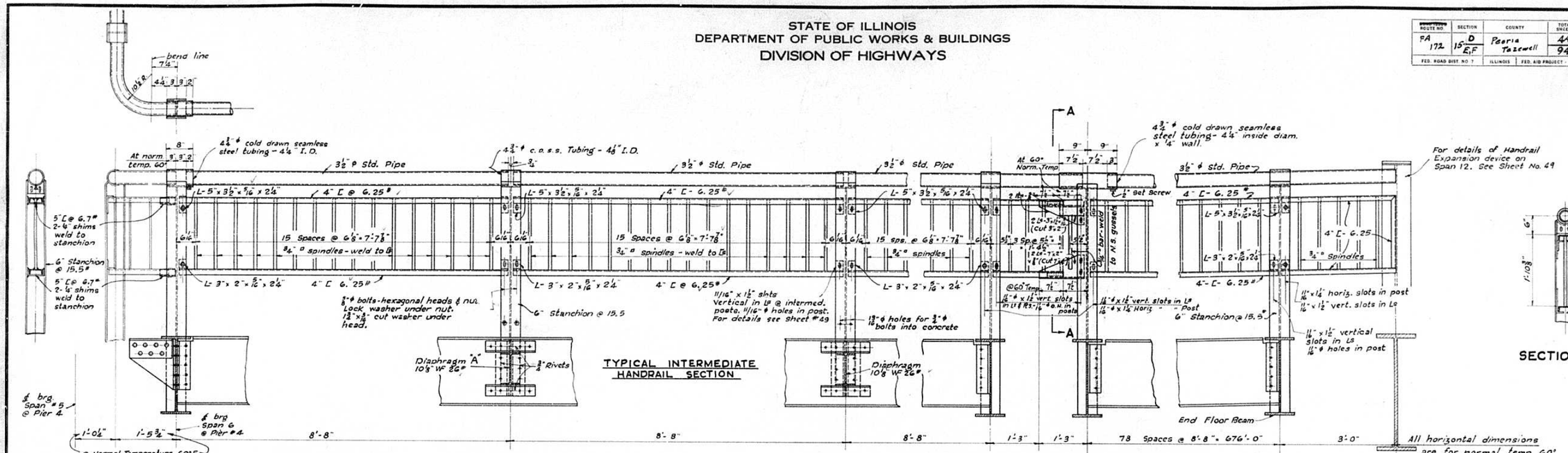
NOTE:- Rivets - $\frac{7}{8}$" unless noted.
Details not shown are similar to corresponding members on left half of truss.
For typical cross section showing Roadway, Floorbeam, Truss Bracing and Stringer Expansion Details - See Sheet #22
Bevels shown on Top Chord and Stringers are for SPAN-11 only.
For General Notes See Sheet #37

SPANS ~ 6 TO 11 INCL.
~ TRUSS DETAILS U6A TO U0A ~
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 SEC. 15-E.F.
PEORIA-TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15-D	Peoria	44	10
	15-E,F	Tazewell	94	48
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	609A	

SHEET NO. 17
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F P.L.

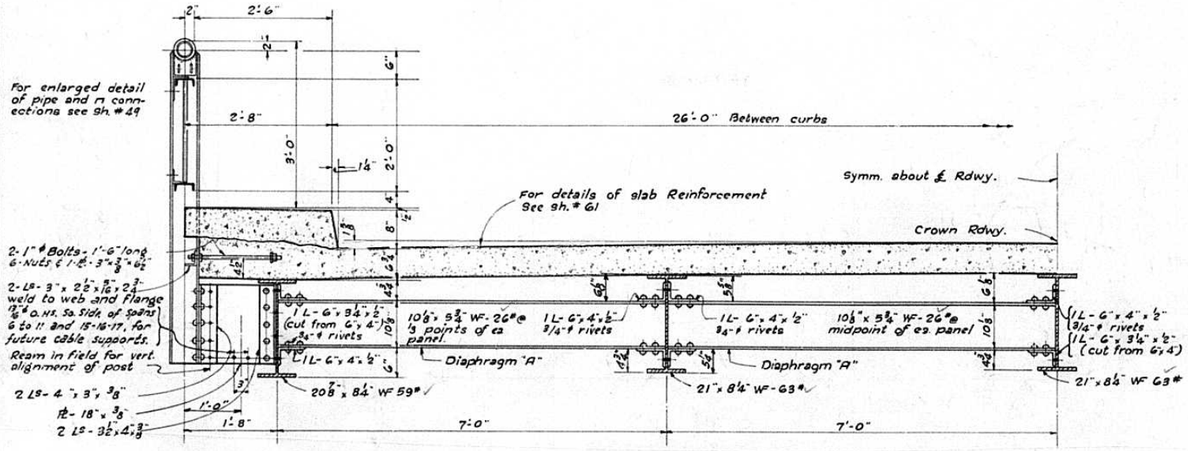


DETAIL END RAIL POST AT U0 - SPAN NO. 6

DETAIL HANDRAIL - END SECTION PANEL U0 TO U1 - SPAN # 6

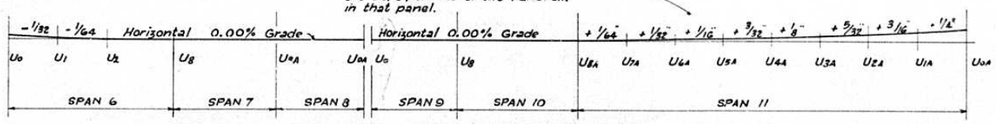
DETAIL TYPICAL INTERMEDIATE HANDRAIL POST FOR ENLARGED DETAIL OF POST SEE SHEET No. 49

DETAIL HANDRAIL - TYPICAL END SECTION ADJACENT TO FLOOR BEAM



HALF CROSS SECTION THROUGH MIDPOINT OF EACH PANEL
HALF CROSS SECTION THRU THIRD POINTS - SIMILAR EXCEPT AS SHOWN
SCALE ¾" = 1'-0"

Fraction shown in each panel indicates the slope per foot of the handrail in that panel.



PROFILE SHOWING VERTICAL ALIGNMENT OF ROADWAY HANDRAIL ON SPANS 6 TO 11 INCL.

Rail and Rail Post quantities are included in Item "Structural Steel" (carbon) - Sheet No. 8

STANDARD	COMPUTED	P. Anderson
	CHECKED	A. L. Thomas
	DRAWN	P.M. - HENRY O. TEFFT
	CHECKED	A.L.T.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
H. F. Quirk, BRIDGE ENGINEER
PASSED H. E. Turman, ENGINEER OF DESIGN
APPROVED Ernest Lieberman, CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46 W. W. Polk, CHIEF HIGHWAY ENGINEER

SPANS 6 TO 11 INCL. - HANDRAIL DETAILS
ILLINOIS RIVER BRIDGE
HARVARD STREET - PEORIA
F. A. RTE. 172 - SECTION 15-E-F-D
PEORIA - TAZEWELL COUNTIES

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

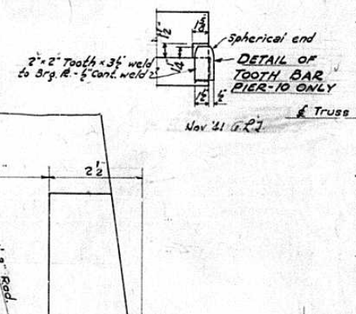
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D E,F	Peoria	44	11
		Tazewell	94	49
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 689A		

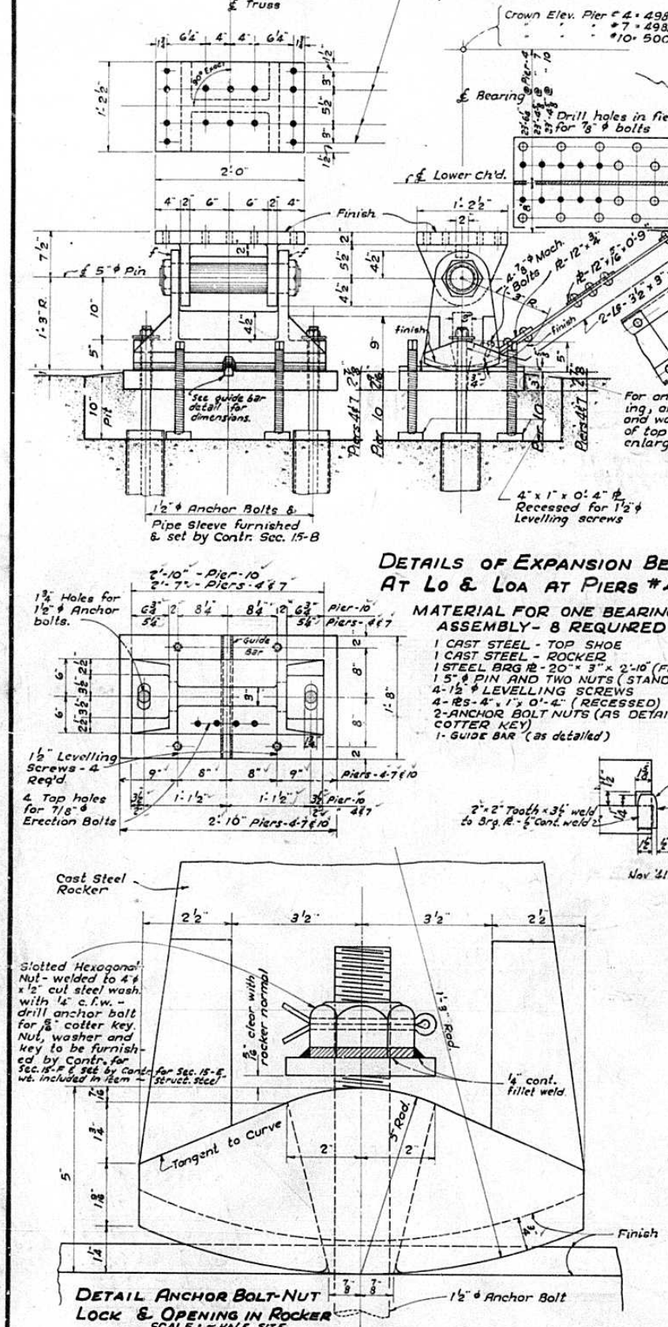
SHEET NO. 18
63 SHEETS SEC. 15-E
70 " SEC. 15-D+F

DETAILS OF EXPANSION BEARING AT Lo & Loa AT PIERS #4-7-10

MATERIAL FOR ONE BEARING ASSEMBLY- 8 REQUIRED

1 CAST STEEL - TOP SHOE
1 CAST STEEL - ROCKER
1 STEEL BRG PL-20" x 3" x 2'-10" (FINISH ~~22½"~~ AS SHOWN)
1 5" ϕ PIN AND TWO NUTS (STANDARD)
4-1½" ϕ LEVELLING SCREWS
4-RS-4" x 1'½ 0'-4" (RECESSED)
2-ANCHOR BOLT NUTS (AS DETAILED WITH COTTER KEY)
1- GUIDE BAR (as detailed)





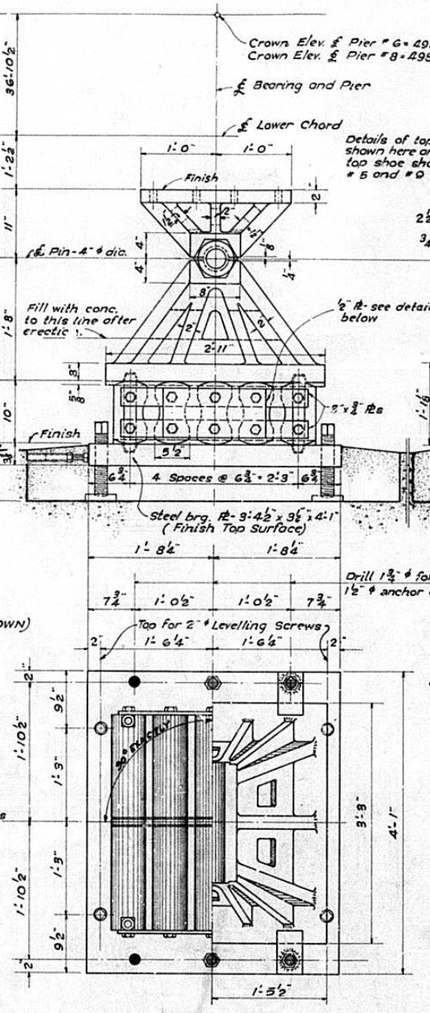
DETAIL ANCHOR BOLT-NUT LOCK & OPENING IN ROCKER
SCALE: 1 - HALF SIZE

STANDARD	COMPUTED	
	CHECKED	A.L. Thomas
	DRAWN	HENRY D. TEPPT
	CHECKED	A.L.Thos.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941 H.T. Burnett BRIDGE ENGINEER
PASSED W.C. Furman ENGINEER OF DESIGN
APPROVED Ernest Lieberman STATE HIGHWAY ENGINEER
APPROVED 2-15-46 W. W. Bolt CHIEF HIGHWAY ENGINEER

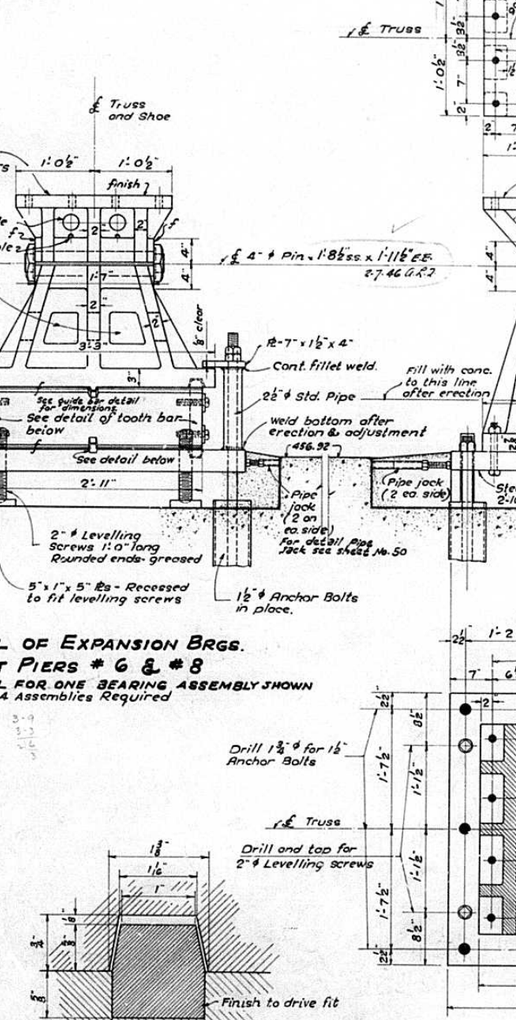
Rev. 2-7-46 G.R.J.

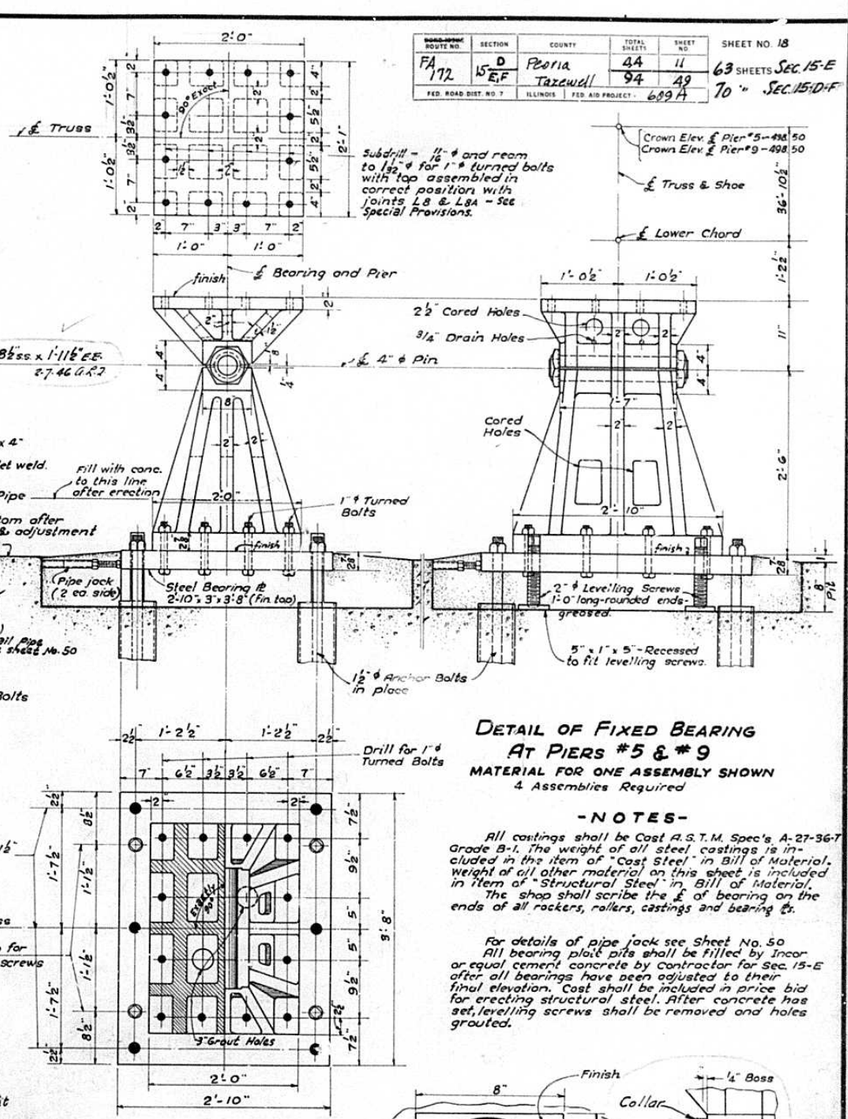
ERECTION BRACE - 2 REQUIRED
Braces are to be removed as soon as trusses are seated on adjacent piers.



DETAIL OF EXPANSION BRGS. AT PIERS # 6 & # 8

MATERIAL FOR ONE BEARING ASSEMBLY SHOWN
4 Assemblies Required





DETAIL OF FIXED BEARING AT PIERS #5 & #9

MATERIAL FOR ONE ASSEMBLY SHOWN
4 Assemblies Required

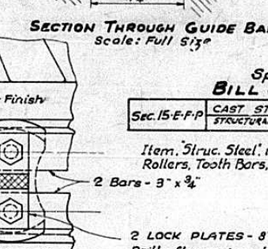
-NOTES-

All castings shall be Cast A.S.T.M. Spec's A-27-36-T Grade B-1. The weight of all steel castings is included in the item of "Cast Steel" in Bill of Material. Weight of all other material on this sheet is included in Item of "Structural Steel" in Bill of Material.

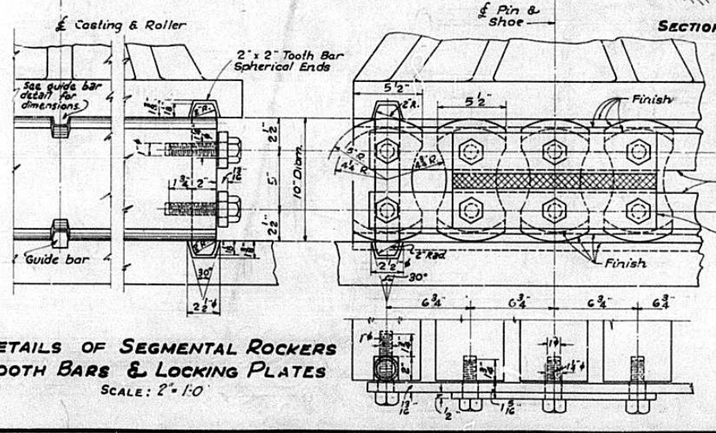
The shop shall scribe the ℄ of bearing on the ends of all rockers, rollers, castings and bearing ℞s.

For details of pipe jack see Sheet No. 50

All bearing plate pits shall be filled by Incor or equal cement concrete by Contractor for Sec. 15-E after all bearings have been adjusted to their final elevation. Cost shall be included in price bid for erecting structural steel. After concrete has set, levelling screws shall be removed and holes grouted.



SECTION THROUGH GUIDE BAR
Scale: Full Size



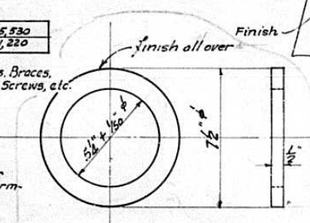
DETAILS OF SEGMENTAL ROCKERS TOOTH BARS & LOCKING PLATES
SCALE: 2" = 1'-0

SPANS 6 TO 11 INCL.
BILL OF MATERIAL

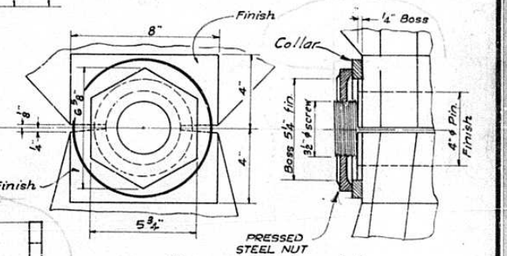
Sec. 15-E-F-P		
	CAST STEEL - LBS.	35,530
	STRUCTURAL STEEL (Carbon) - LBS.	31,220

Item "Struc. Steel" includes Pins, Nuts, Bolts, Braces, Rollers, Tooth Bars, Bearing Pls., Levelling Screws, etc.

2 LOCK PLATES - 8" x ½" x 1'-5½"
Drill after rockers have been adjusted for temperature and truss deformation. Information for drilling will be furnished to the fabricator when landing temperature has been determined by the Erector. The cross hatched portion shall be flame cut as soon as landing has been made.



COLLAR FOR PEDESTALS
PIERS 5-6-8&9
16 Req'd.
2-7-46 G.R.J.



DETAIL OF PIN AND NUT FOR BEARING AT L8 & L8A
SCALE: 3" = 1'-0"

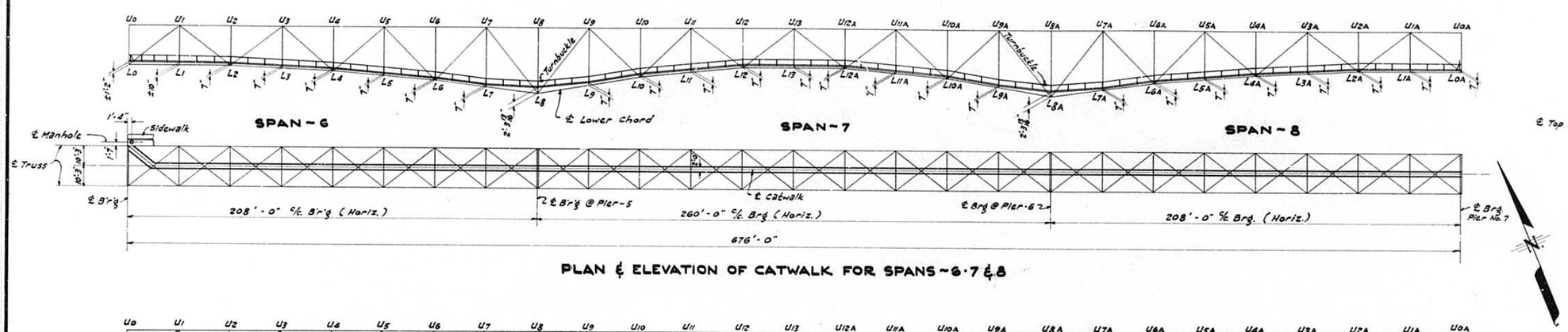
BEARING DETAILS - SPANS 6 TO 11 INCL.

ILLINOIS RIVER BRIDGE
HARVARD STREET - PEORIA
F. A. RTE. 172 - SECTION 15-E.F.P.
PEORIA - TAZEWELL COUNTIES

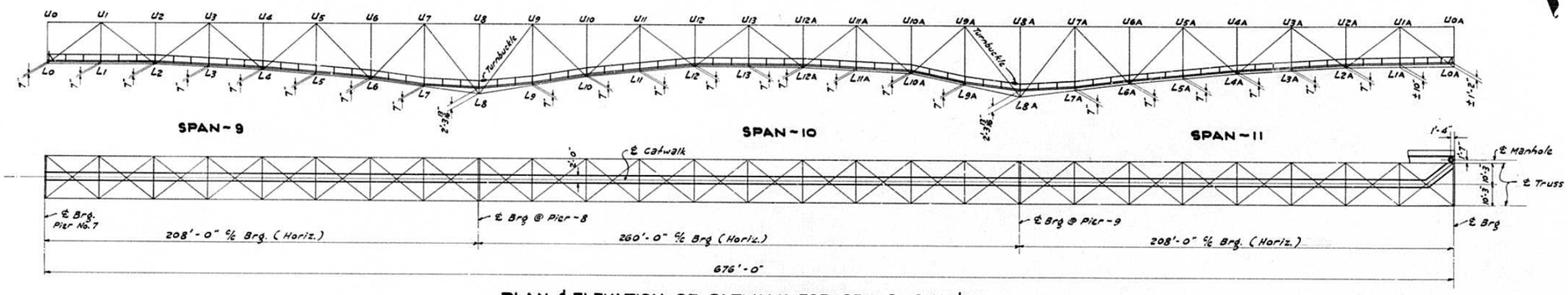
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DIST. OR STREET ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E,F	Peoria	44	12
		Tazewell	94	50
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: 60DA		

SHEET NO. 19
63 SHEETS SEC. 15-E
70 " SEC. 15-D & F



PLAN & ELEVATION OF CATWALK FOR SPANS - 6 · 7 & 8



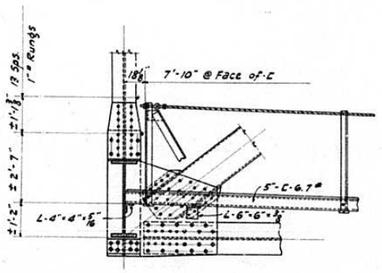
PLAN & ELEVATION OF CATWALK FOR SPANS - 9·10 & 11

NOTE:—
For details of rail post connections, sidewalk grating, connection to bottom laterals & struts, and other details not shown on this sheet, see sheet No. 34
For notes regarding CATWALK see sheet No. 34

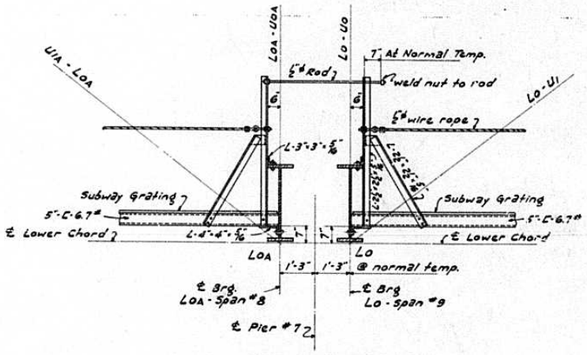
BILL OF MATERIAL - CATWALK SPANS-6 TO 11-INCL.

ITEM		SEC. 15-E.F.R.
Structural Steel (carbon)	Lbs.	20,100
Wire Rope	Lin. Ft.	1,469
Open Grid Floor	Sq. Ft.	2,930

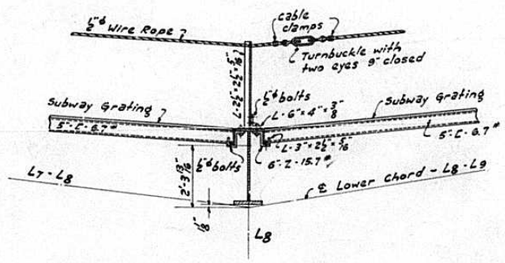
ITEM		SEC. 15-D.F.
C.I. Frames & Covers	Lbs.	1,050



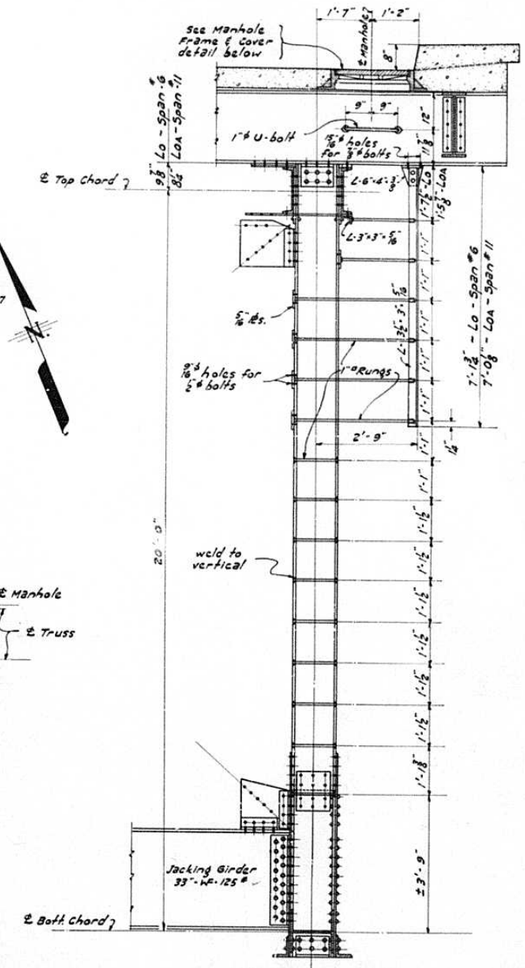
DETAIL AT L0-SPAN-6 - AS SHOWN
DETAIL AT L0A-SPAN-11 - OPPOSITE HAND
FOR SIZES, MATERIALS & DIMENSIONS, PLAN & SECTIONS NOT SHOWN HERE - SEE SHEET No. 34



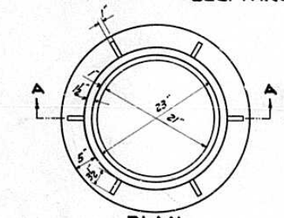
DET. AT PIER - 7

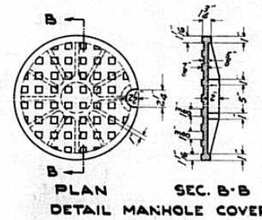


DETAIL CATWALK CONNECTION AT L8 & L8A



SEC. THRU MANHOLE AT U0-SPAN-6 & U0A-SPN-11 (OPP. HAND)





DETAIL MANHOLE COVER

NOTE -
The diameter of cover shall be such to fit the frame without wedging.
Weight - one cover · 150 Lbs.



SEC. A-A
DETAIL MANHOLE FRAME
Weight - one frame · 375 Lbs.
Frames & Covers shall be furnished and set by Contr. for Sec. 15-D

STANDARD	COMPUTED	P. D. Dishman
	CHECKED	A. L. Thomas
	DRAWN	P. D. & J. Malecki
	CHECKED	A. L. Thos.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
H. F. Bundy BRIDGE ENGINEER
PASSED H. C. Sturman ENGINEER OF DESIGN
APPROVED Ernst J. Lieberman HIGHWAY ENGINEER
APPROVED 2-15-46
W. W. Bach CHIEF HIGHWAY ENGINEER

DETAILS OF CATWALK
SPANS-6 TO 11 INCL.
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 SEC. 15-D.E.F.R.
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D & F	Peoria	44	13
		Tazewell	94	51
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	609A	

SHEET NO. 20
63 SHEETS SEC. 15-E
70 " SEC. 15-D
RL

SECTION D-D

TOP VIEW OF TYPICAL UNIT

SECTION THRU EXPANSION JOINT

LOCATION SKETCH FOR FINGER EXPANSION UNITS

End units are same as typical units except for dimension (L)
Required 20 Typical Units (L = 2'-3 7/8")
Required 1 End Units (L = 1'-4 5/16")
Required - 1 End Unit (L = 1'-2")
Required - 2 End Unit (L = 1'-2")

STANDARD	COMPUTED	
	CHECKED	A.L. Homer
	DRAWN	P.M. HENRY D. TEPPER JR.
	CHECKED	A.R.J.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5- 1941
M.F. Quade BRIDGE ENGINEER
PASSED H.E. Garman ENGINEER OF DESIGN
APPROVED Ernest Lieberman DIRECTOR HIGHWAY ENGINEER
APPROVED 2-15-46 W.W. Peek CHIEF HIGHWAY ENGINEER

ENLARGED DETAIL SHOWING DRAINAGE PROVISION FOR TOP OF BRACKET

SECTION A-A

SCALE: 3/8" = 1'-0"

SECTION B-B

SCALE: 3/8" = 1'-0"

SECTION C-C

SCALE: 3/8" = 1'-0"

DETAIL "A"

DETAIL "B"

SECTION E-E

NOTES

All 2" x 1" bars, 9 @ 4'-6" lgs & 2" x 1 1/2" & 3" x 1" separators shall be copper brg. steel conforming to A.S.T.M. Specifications A-7-36.
3/4"ø csk. head bolts, nuts and washers shall be sherardized.
All copper bearing steel and sherardized bolts, nuts and washers to be included in bid item of "Structural Steel-Carbon".
All welds not noted shall be 3/8" f.w.

* Note to Erector.
Decrease this dimension by 1/8" per 100 feet of bridge for ea. 15° rise in temperature above normal of 60°F
Increase each dimension by the same amount for each 15° drop in temperature below normal of 60° F.

NOTE "A"

Punch holes 13/16" ø in angles in shop Drill 13/16" ø holes in beam and strap 'L in field thru angle as a templet after adjusting expansion 'L to proper line & level.

NOTE "B"

All side walk plates shall be Carnegie type Mill or equal. Long axis of raised treads shall be parallel to ℄ Rdwy.

NOTES

Roadway and sidewalk expansion devices shall be assembled in the shop in their proper positions with two end floor beams in place and shall be left assembled for shop inspection.
Expansion device shall be fabricated with 1" normal shims between floor beams and expansion device supporting angle. Normal shims shall be made up of 2-1", 2-1/2" & 4-1/2" Plates
Use 7/8" ø rivets unless noted; O.H's as noted.
Paint same as "Structural Steel"
Premoulded joint filler to be included in the unit price bid for "Erecting Structural Steel."

BILL OF MATERIAL — EXP. DEVICE AT PIER 7

Sec's 15-F-E-P	Structural Steel (Carbon)	Lbs.	7,225

SPANS 8&9

ROADWAY & SIDEWALK EXPANSION DETAILS AT PIER #7

ILLINOIS RIVER BRIDGE
HARVARD STREET-PEORIA
F. A. RTE. 172 - SECTION 15-E-F-P.A.
PEORIA - TAZEWELL COUNTIES

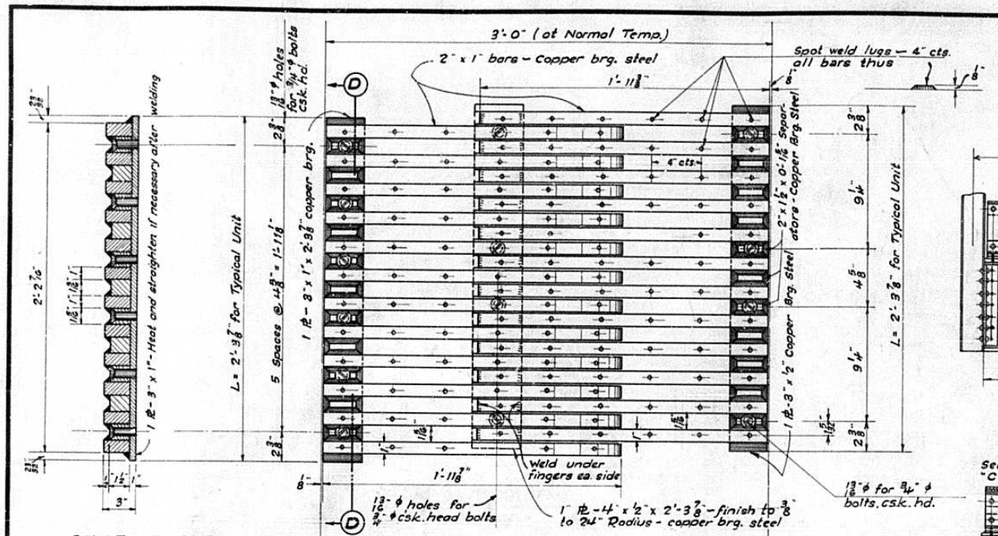
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

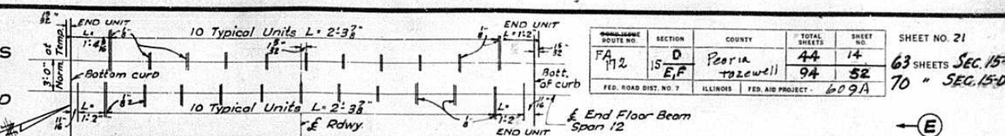
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D	Peoria	44	14
	15 E,F	Tazewell	94	52
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 21
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F

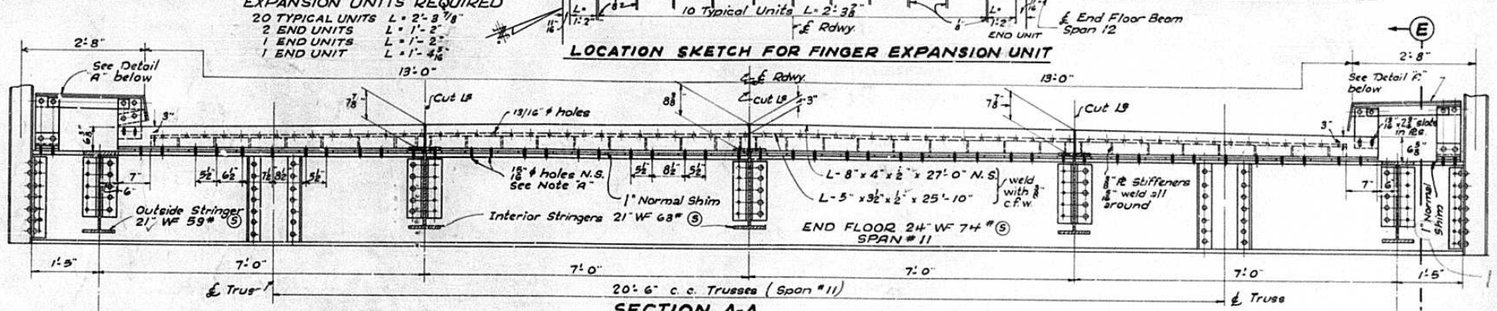
EXPANSION UNITS REQUIRED

20 TYPICAL UNITS	L = 2'-3 7/8"
2 END UNITS	L = 1'-2"
1 END UNITS	L = 1'-2"
1 END UNIT	L = 1'-4 1/8"



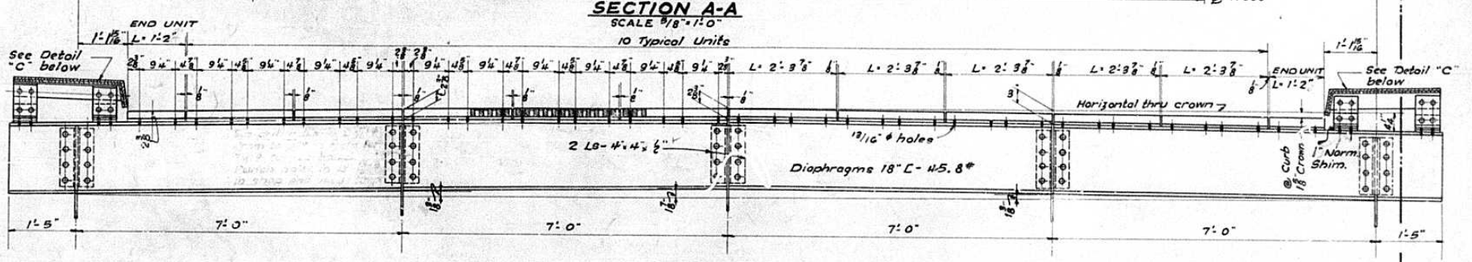


LOCATION SKETCH FOR FINGER EXPANSION UNIT



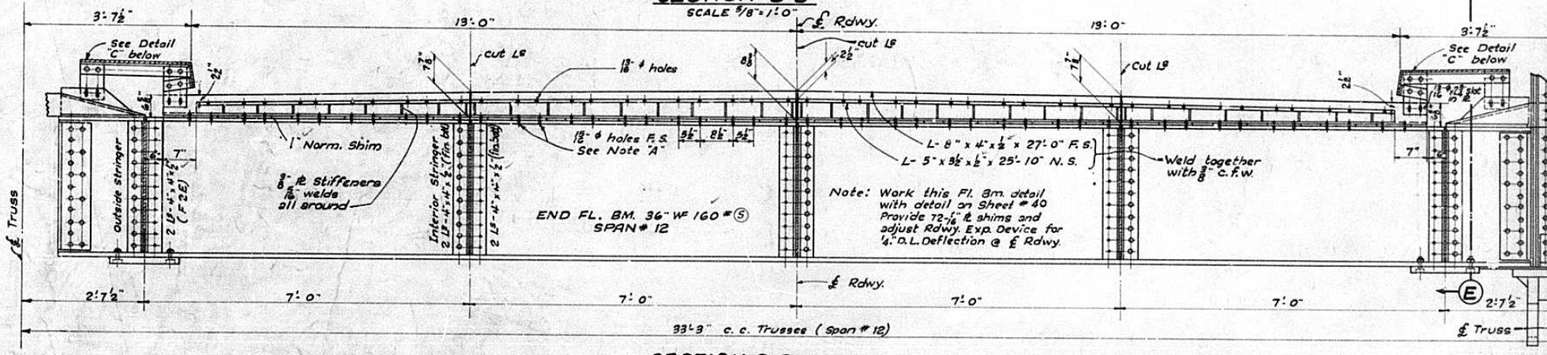
SECTION A-A

SCALE 3/8" = 1'-0"



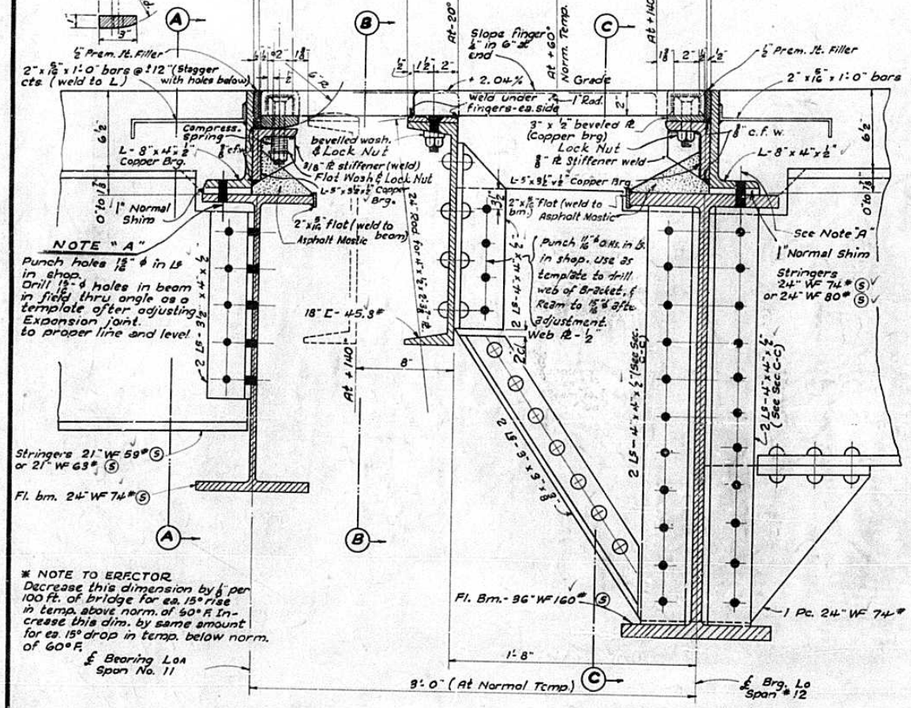
SECTION B-B

SCALE 3/8" = 1'-0"



SECTION D-D

TOP VIEW OF TYPICAL UNIT



NOTE "A"

Punch holes 13/16" ϕ in L9 in shop. Drill 13/16" ϕ holes in beam in field thru angle as a template after adjusting Expansion joint to proper line and level.

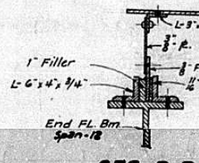
* NOTE TO ERECTOR
Decrease this dimension by 1/8" per 100 Ft. of bridge for ea. 15° rise in temp. above norm. of 60° F. Increase this dim. by same amount for ea 15° drop in temp. below norm. of 60° F.

SECTION THRU EXPANSION JOINT AT PIER 10

SCALE: 2" = 1'-0"

STANDARD	COMPUTED	P. Bigelow
	CHECKED	A. L. Romer
	DRAWN	P. M. - HENRY D. TRENT
	CHECKED	A. L. L.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
H. T. Sweet BRIDGE ENGINEER
PASSED H. E. Surman ENGINEER OF DESIGN
APPROVED Ernst Lieberman
APPROVED 2-15-46
W. W. Polk CHIEF HIGHWAY ENGINEER



SEC. D-D

NOTES

All 2" x 1" bars, 3" x 1/2" x 4" x 5/8" ℞s and 2" x 1/2" separators & 3" x 1" ℞s. shall be copper bearing steel conforming to A.S.T.M. Specification A-7-36.

7/8" ϕ csk. head bolts, nuts and washers shall be shredded.

All copper bearing steel and shredded bolts nuts and washers to be included in bid item of "Structural Steel- Carbon."

Roadway and sidewalk expansion devices shall be assembled in the shop in their proper positions with two end floor beams in place and shall be left assembled for shop inspection.

Expansion device shall be fabricated with 1" normal shims between floor beams and expansion device supporting angle. Normal shims shall be made up of 2-1/4", 1-2 1/8" and 4-1/16" plates.

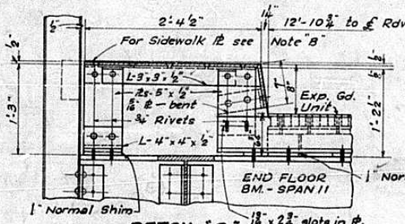
Use 7/8" ϕ rivets except as noted. c.h.'s as noted.

Paint same as "Structural Steel"

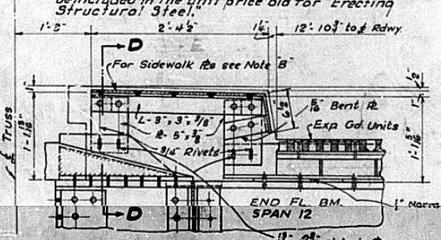
Asphalt mastic & Premoulded joint filler to be included in the unit price bid for "Erecting Structural Steel."

SECTION C-C

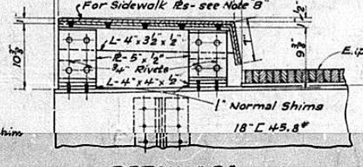
SCALE 3/8" = 1'-0"



DETAIL "A"



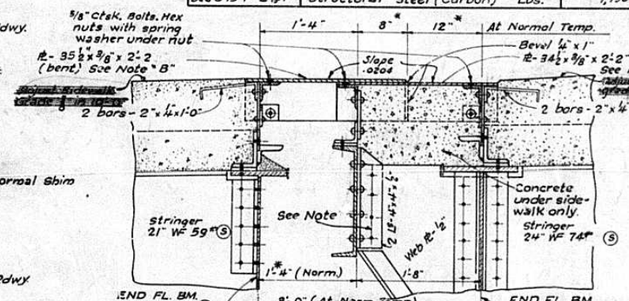
DETAIL "C"



DETAIL "B"

BILL OF MATERIAL - EXP. DEVICE AT PIER 10

Sec's 15 F-E & P	Structural Steel (Carbon)	Lbs.	7,750



SECTION E-E

NOTE "B" All sidewalk plates shall be Carnegie type M-41 or equal. Long axis of raised treads shall be parallel to ℄ Rdwy.

SPRUS 11-12

ROADWAY AND EXPANSION DETAILS AT PIER 10

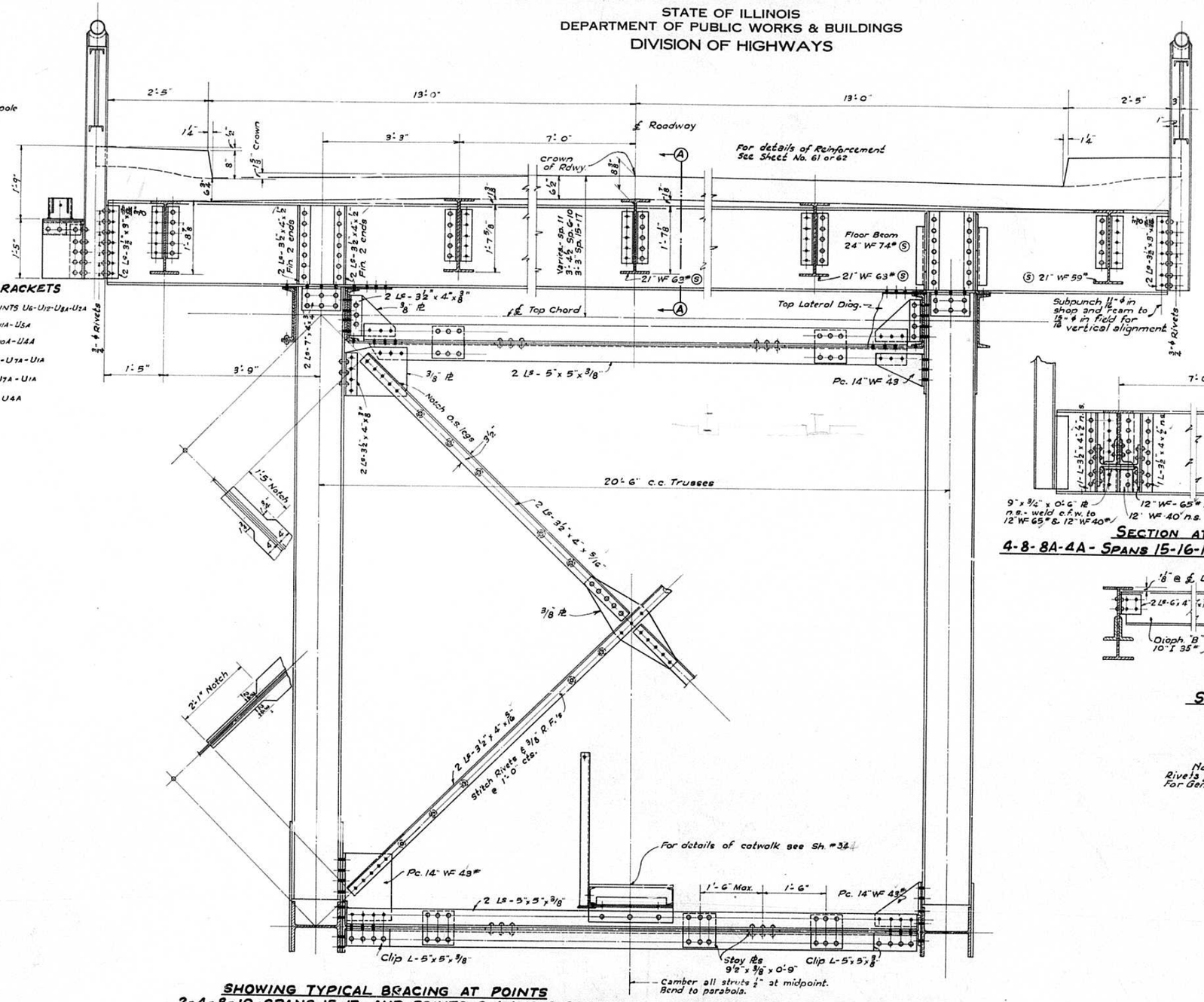
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F. A. RTE. 172 - SECTION 15-E-F & D.
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D, E, F	Peoria, Tazewell	44, 94	15, 93
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 22
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F P.L

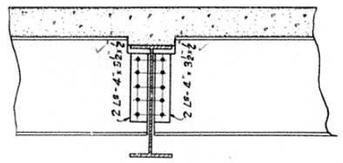
For sizes and materials of light pole brackets see Sheet No. 54



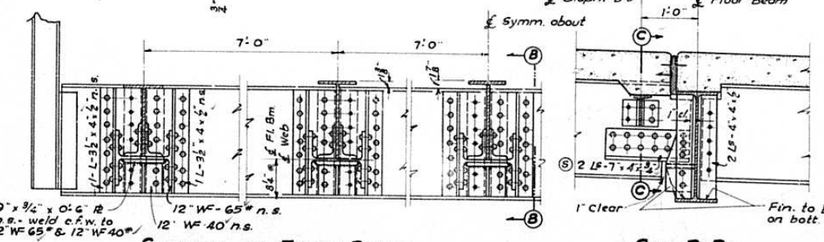
LOCATION OF LIGHT POLE BRACKETS

SPANS 6-7-8 NORTH TRUSS PANEL POINTS U6-U12-U8A-U2A
SPANS 6-7-8 SOUTH TRUSS U3-U9-U11A-U5A
SPANS 9-10-11 NORTH TRUSS U4-U10-U10A-U4A
SPANS 9-10-11 SOUTH TRUSS U1 U7 U11-U7A-U1A
SPANS 15-16-17 SOUTH TRUSS U1-U7-U7A-U1A
SPANS 15-16-17 NORTH TRUSS U4-U10-U4A

SHOWING TYPICAL BRACING AT POINTS
2-4-8-10-SPANS 15-17 AND POINTS 2-4-6-10-12-SPANS 6-11

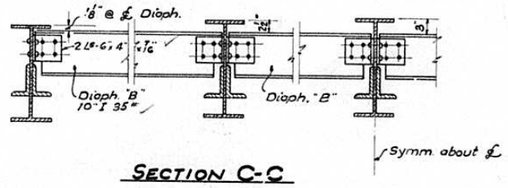


SECTION A-A
TYPICAL FOR ALL PANEL POINTS EXCEPT AT EXPANSION POINTS AS LISTED BELOW.



SECTION AT FLOOR BEAMS
4-8-8A-4A - SPANS 15-16-17 & 2-6-10-10A-6A-2A-SPANS 6-11 INCL.

SEC. B-B



SECTION C-C

Notes
Rivets ⅞ unless noted
For General Notes - See Sheet No. 37

TYPICAL FOR POINTS 1-3-5-7 ETC.

TYPICAL CROSS SECTION - DECK TRUSS SPANS 6-11 INCL & 15-16-17

FOR VARIATION DUE TO STRINGER EXPANSION SEE SECTION ON THIS SHEET. TRUSS CONNECTIONS SHOWN FOR SPANS 6-11 INCL. FOR TRUSS CONNECTIONS FOR SPANS 15-16-17 SEE SH. No. 29

STANDARD	COMPUTED	R.B.Murphy
	CHECKED	R.W.Hansen
	DRAWN	R.B.M. HENRY TIBBIT JR.
	CHECKED	R.W.H.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5- 1941
A. T. Sweet BRIDGE ENGINEER
PASSED N. E. Sherman ENGINEER OF DESIGN
APPROVED Ernest Lieberman HIGHWAY ENGINEER
APPROVED 2-18-46 W. W. Bork CHIEF HIGHWAY ENGINEER

Rec 2-7-46 A.H.T.

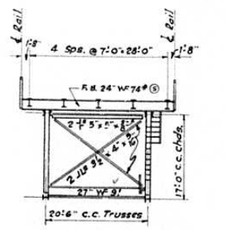
SPANS 6-11 INCL. & SPANS 15-16-17
CROSS-SECTION-DECK TRUSSES
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F. A. RTE. 172 - SECTION 15 E-F-P-D
PEORIA-TAZEWELL COUNTIES

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

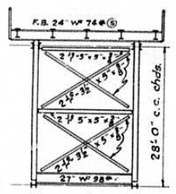
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	D 15 E.F	Peoria Tazewell	44 94	16 54
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 629A		

SHEET NO. 23
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F-RL

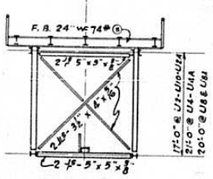
Diaphragm "A" - 10" wf 26# - See Detail - Sheet # 17
Diaphragm "B" - 10" Sid. I 35# - See Detail - Sheet # 22



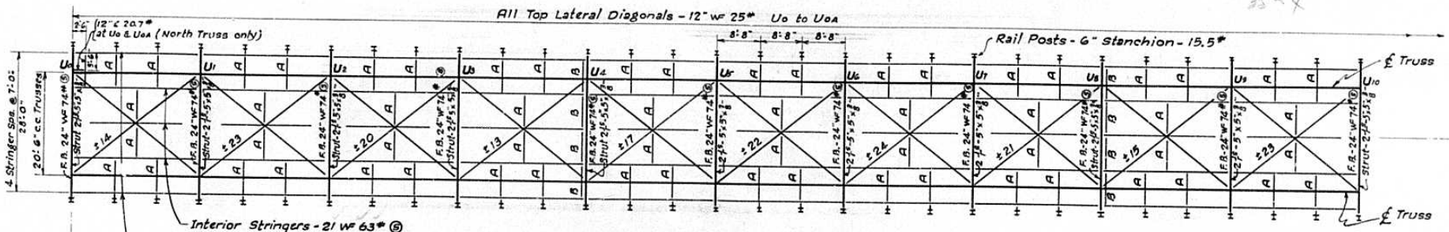
SECTION AT U_0L_0 & $U_{0A}L_{0A}$
LOOKING WEST



SECTION AT U_6L_6 AND $U_{6A}L_{6A}$
LOOKING WEST

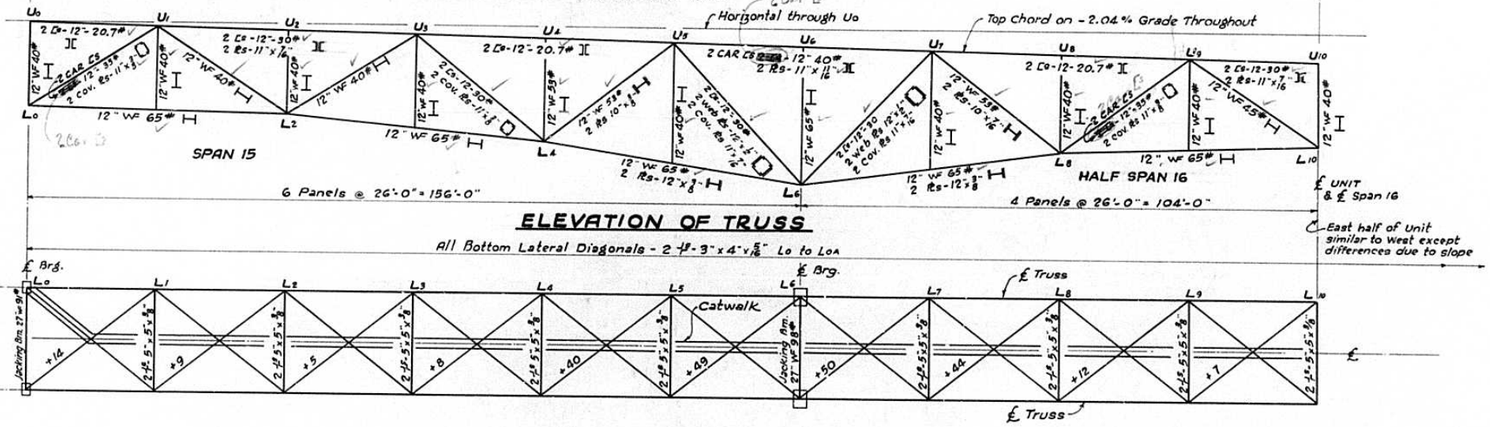


SECTION AT U_2-U_8-U_{16}
U_{10} - U_{8A} - U_{4A} - U_{2A}



PLAN - TOP BRACING AND FLOOR SYSTEM

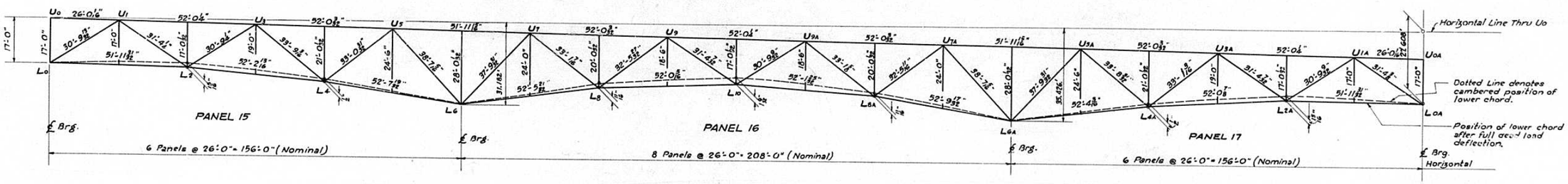
SHOWING STRESSES IN DIAGONAL BRACING DUE TO 300 POUNDS PER LINEAL FOOT
STRESSES IN KIPS



ELEVATION OF TRUSS

PLAN - BOTTOM CHORD BRACING

SHOWING STRESSES (IN KIPS) IN DIAGONAL BRACING DUE TO 150 LBS. PER LINEAL FOOT



SHOP CAMBER DIAGRAM

SHOWING LOWER CHORD BLOCKING AND FABRICATED LENGTHS OF MEMBERS AFTER CORRECTING FOR DEFORMATIONS DUE TO FULL D.L.

FLOOR SYSTEM AND JACK SUPPORTS MAXIMUM MOMENTS AND SHEARS

MEMBER	MAXIMUM MOMENTS FOOT KIPS D	L	TOTAL	MAXIMUM REACTION KIPS D	L	T	SECTION
Interior Stringer	57	194	251	8.8	37.3	46.1	21 wf 63# (Silicon)
Curb Stringer	68	158*	226	10.5	27.2*	37.7	21 wf 59# (Silicon)
Intermediate Floor Beam	73	241	314	48.8	61.4	110.2	24" wf 74# (Silicon)
End Floor Beam	41	251	292	27.0	64.2	91.2	24" wf 74# (Silicon)
Jacking Beam at Lo (Steel Only)		100				40	27" wf 91# (Carbon)
Jacking Beam at Lo (Full D.L.)		300				120	27" wf 91# "
Jacking Beam at L6 (Steel Only)		‡307				169	27" wf 98# "

D. = Dead Load
L. = H-20 Live Load + Impact
* Assumes outer truck wheels on walk above beam.
‡ Unit Stress in Beam = 23.8 Kips per Sq. In.

BILL OF MATERIAL - SPANS 15-16-17

Sec. 15-E-F-P	Structural Steel (Carbon)	Lbs. 650,520
Sec. 15-E-F-P	Structural Steel (Silicon)	Lbs. 208,650

STANDARD	COMPUTED	R.B.M. Murphy
	CHECKED	G.W. Lemmon
	DRAWN	R.B.M.
	CHECKED	R.W.A.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
H. F. Bureau, BRIDGE ENGINEER
PASSED H.E. Sturman, ENGINEER OF DESIGN
APPROVED Ernest Lieberman, STATE HIGHWAY ENGINEER
APPROVED 2-16-46 A. W. Peik, CHIEF HIGHWAY ENGINEER

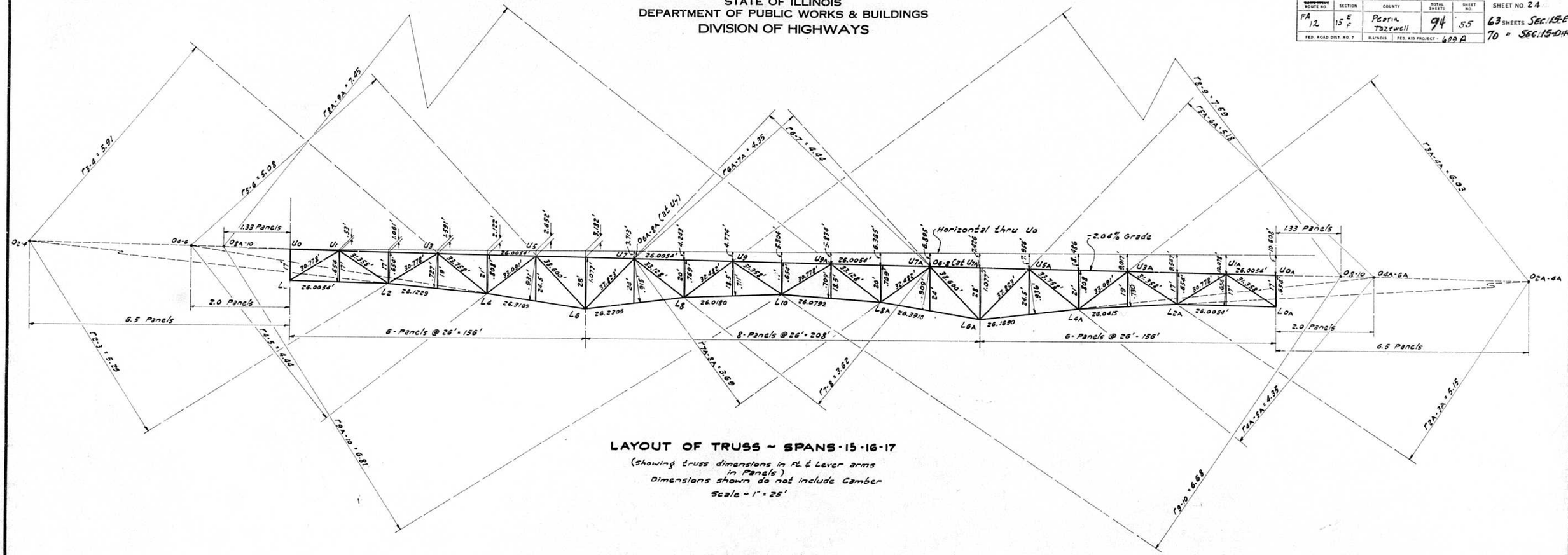
Rev. 2-7-46 R.B.M.

SPANS 15-16-17
FRAMING PLAN - SHOP CAMBER
ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F. A. RTE. 172 - SEC. 15-E-F-D-I
PEORIA - TAZEWELL COUNTIES

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

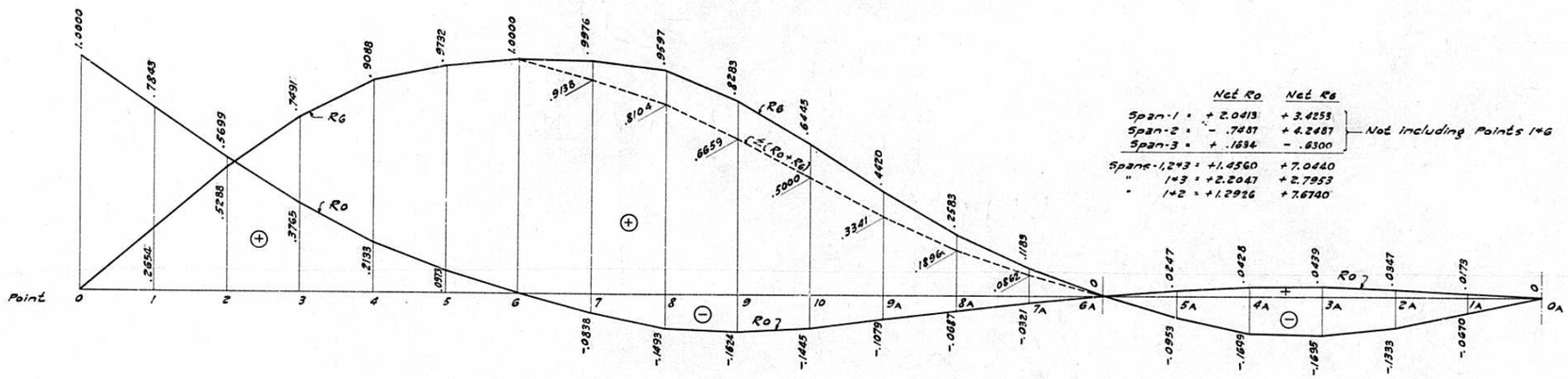
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 12	15 E F	Peoria Tazewell	94	55
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 409 A		

SHEET NO. 24
63 SHEETS SEC. 15-E
70 " SEC. 15-D&F



LAYOUT OF TRUSS ~ SPANS · 15 · 16 · 17

(Showing truss dimensions in Ft. & Lever arms in Panels)
Dimensions shown do not include Camber
Scale - 1" = 25'



REACTION INFLUENCE LINES

Scale - 1" = 25' Horizontal
1" = .3 Kip Vertical

	Net Ro	Net R6	
Span-1 =	+ 2.0413	+ 3.4253	Not including Points 1=6
Span-2 =	- .7487	+ 4.2487	
Span-3 =	+ .1694	- .6300	
Spans-1,2,3 =	+1.4560	+ 7.0440	
" 1&3 =	+2.2047	+ 2.7953	
" 1&2 =	+1.2926	+ 7.6740	

DESIGN PANEL LOADS - KIPS

Point	Steel*	Concrete	Total
0	12.73	20.36	33.09
1	19.18	40.71	59.89
2	19.26	40.71	59.97
3	19.23	40.71	59.94
4	21.61	41.07	62.68
5	23.34	40.71	64.05
6	30.10	40.71	70.81
7	29.22	40.71	69.93
8	21.44	41.07	62.51
9	19.45	40.71	60.16
10	19.47	40.71	60.18
Net Ro	28.05	59.29	87.34
Net R6	148.41	287.48	435.89

* Includes 45 lbs. per foot load from power cables.

STANDARD	COMPUTED	F.E.K. Murphy
	CHECKED	Rasmussen
	DRAWN	R.R.M. & Maleki
	CHECKED	Rasmussen
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
M. F. Burnett
BRIDGE ENGINEER
PASSED K. E. Burman
ENGINEER OF DESIGN
APPROVED Ernest Johnson
STATE HIGHWAY ENGINEER
APPROVED 8-15-46 W. W. Polk
CHIEF HIGHWAY ENGINEER

SPANS 15-16-17
TRUSS LAYOUT & REACTION LINES
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE, 172 - SECTION 15-E-F-H
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	56
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 25
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F RL

E = 30,000 KIPS/SQ. IN.

MEMBER	SECTION	AREA – SQ. IN. GROSS = Ag	AREA – SQ. IN. NET (FOR ALLOW. STRESS) = An	AREA – SQ. IN. EFFECTIVE FOR DEFL. = Ac	LENGTH FT.	RADIUS OF GYRATION r	l/r	DEAD LOAD STRESSES-KIPS STEEL SUPER = Ds	DEAD LOAD STRESSES-KIPS CONCRETE FLOOR = Dc	DEAD LOAD STRESSES-KIPS TOTAL DEAD LOAD = D	LIVE LOAD STRESS-KIPS H-20+IM = L	WIND STRESSES-KIPS 15# WIND +100% W.L. = W2	WIND STRESSES-KIPS 30# WIND = W1	TOTAL STRESSES-KIPS D+L	TOTAL STRESSES-KIPS D+L+W2	TOTAL STRESSES-KIPS D+W1	UNIT STRESSES-KIPS/SQ.IN. D+L	UNIT STRESSES-KIPS/SQ.IN. D+L+W2	UNIT STRESSES-KIPS/SQ.IN. D+W1	ALLOWABLE UNIT STRESSES-KIPS/□" D+L	ALLOWABLE UNIT STRESSES-KIPS/□" D+L+W2 or D+W1	ALLOWABLE TOTAL STRESS KIPS D+L	CORRECTION FOR CAMBER THEORETICAL CORRECTION = −Ds/AcE	CORRECTION FOR CAMBER FABRICATED LENGTH FT.-IN.	CORRECTION FOR CAMBER ACTUAL CORRECTION-FT. +FABRICATED LGTH=NOMINAL	DEFORMATION STEEL WT. FT. Ds/AcE	MEMBER
U_0U_1	2 Cs-12-20.7# 2 Cov. Rs-11"x 5/16	12.06		12.06	26.005	4.61	67.7	0	0	0	0	±11	±11	0	±11	±11	0	±0.91	±0.91	+18.0 −13.85		-167	0	26'-0 1/16"	-.0002	0	U_0U_1
U_1U_3	2 Cs-12-30# 2 Rs-11"x 5/16	27.2		27.2	52.011	3.93	79.4	-53	-123	-176	-176	±17	±17	-352	-369	-193	-12.94	-13.56	-7.10	-13.42		-365	+0.112	52'-0 1/4"	+.0098	-.0034	U_1U_3
U_3U_5	2 Cs-12-20.7# (2 CAR Cs) 2 Cs-12-40# 2 Rs-11"x 11/16"	12.06(c)	9.19(t)	12.06	52.011	4.61	67.7	+4	+9	+13	-115 +114	±20 ±13	±20	-102 +127	-122 +140	+93	-8.45 +9.82	-10.11 +15.23	+3.59	-13.85 +18.0		-167 +165	-.0019	52'-0 3/32"	-.0032	+.0006	U_3U_5
U_5U_7	2 Cs-12-40# 2 Rs-11"x 11/16"	38.58	31.98	38.58	52.011			+113	+244	+357	+202	±14	±14	+559	+573	+371	+18.00	+18.45	+11.94	+18.0		+559	-.0181	51'-11 15/16"	-.0162	+.0051	U_5U_7
U_7U_9	2 Cs-12-20.7#	12.06(c)	9.19(t)	12.06	52.011	4.61	67.7	+6	+14	+20	-78 +77	± 24 ± 92	± 24	-58 +97	-82 +129	+44	- 4.80 +10.39	-6.80 +14.05	+4.79	-13.85 +18.0		-167 +165	-.0029	52'-0 3/32"	-.0032	+.0009	U_7U_9
U_9U_{9A}	2 Cs-12-30# 2 Rs-11"x 7/16"	27.2		27.2	52.011	3.93	79.4	-50	-111	-161	-178	±23	±23	-339	-362	-184	-12.46	-13.31	-6.76	-13.42		-365	+.0103	52'-0 1/4"	+.0098	-.0032	U_9U_{9A}
$U_{9A}U_{7A}$	do.				52.011					+20																	$U_{9A}U_{7A}$
$U_{7A}U_{5A}$	Same as U_5-U_7				52.011					+357													East half same as West half				$U_{7A}U_{5A}$
$U_{5A}U_{3A}$	Same as U_3-U_5				52.011					+13																	$U_{5A}U_{3A}$
$U_{3A}U_{1A}$	Same as U_1-U_3				52.011					-176																	$U_{3A}U_{1A}$
$U_{1A}U_{0A}$	Same as U_0-U_1				26.005					0																	$U_{1A}U_{0A}$
L_0L_2	12" WF 65#	19.11	16.69	19.11	52.011			+40	+94	+134	+115	±26	±26	+249	+275	+160	+14.91	+16.47	+9.58	+18.0		+300	-.0122	51'-11 31/32"	-.0136	+.0036	L_0L_2
L_2-L_4	do	19.11	16.69	19.11	52.246			+34	+79	+113	+165	±31	±31	+278	+309	+144	+16.65	+18.51	+8.62	+18.0		+300	-.0103	52'-2 13/16"	-.0116	+.0031	L_2L_4
L_4-L_6	12" WF 65# 2 Rs-12"x 5/8"	28.11	27.33	28.11	52.621	3.17	99.6	-55	-123	-178	-131	±31	±41	-309	-340	-219	-11.31	-12.44	-8.01	-12.5		-342	+.0111	52'-7 19/31"	+.0118	-.0034	L_4L_6
L_6-L_8	do	28.11	27.33	28.11	52.461	3.17	99.3	-57	-127	-184	-124	±17	±25	-308	-325	-209	-11.27	-11.89	-7.65	-12.5		-342	+.0114	52'-5 51/32"	+.0104	-.0035	L_6L_8
L_8-L_{10}	12" WF 65#	19.11	16.69	19.11	52.036			+33	+73	+106	+143	±36	±36	+249	+285	+142	+14.91	+17.06	+8.51	+18.0		+300	-.0096	52'-0 5/16"	-.0100	+.0030	L_8L_{10}
L_{10}-L_{8A}				19.11	52.158			+33	+73	+106													-.0096	52'-1 25/32"	-.0096	+.0030	$L_{10}L_{8A}$
L_{8A}-L_{6A}				28.11	52.784	3.17	100.0	-57	-128	-185													+.0116	52'-9 17/32"	+.0103	-.0036	$L_{8A}L_{6A}$
L_{6A}-L_{4A}				28.11	52.338	3.17	99.1	-55	-122	-177													+.0110	52'-4 3/16"	+.0110	-.0034	$L_{6A}L_{4A}$
L_{4A}-L_{2A}				19.11	52.083			+34	+79	+113													-.0103	52'-0 7/16"	-.0101	+.0031	$L_{4A}L_{2A}$
L_{2A}-L_{0A}				19.11	52.011			+40	+94	+134													-.0122	51'-11 31/32"	-.0136	+.0036	$L_{2A}L_{0A}$
L_0U_1	2 CAR Cs 2 Cs-12-55# 2 Cov. Rs-11"x 3/8"	28.11 / 28.11	22.96 / 22.02	27.33 / 27.33	30.778	4.60 / 4.60	78.4 / 80.2	-48	-110	-158	-154			-312			-12.39 / -12.46			-13.55 / -13.33		-338 / -338	+.0059	30'-9 13/32"	+.0059	-.0018	L_0U_1
U_1L_2	12" WF 40#	11.77	9.71	11.77	31.358	1.94	194.0	+16	+35	+51	+103			+156			+16.08			+18.0		+175	-.0045	31'-4 1/4"	-.0038	+.0014	U_1L_2
L_2U_3	12" WF 40#	11.77	9.71	11.77	30.778			+23	+52	+75	+92			+167			+17.20			+18.0		+175	-.0065	30'-9 1/4"	-.0072	+.0020	L_2U_3
U_3L_4	2 Cs-12-30# 2 Cov. Rs-11"x 1/2"	25.83	22.08	24.59	33.758	4.73	85.6	-49	-114	-163	-126			-289			-13.08			-13.17		-291	+.0075	33'-9 5/16"	+.0076	-.0022	U_3L_4
L_4U_5	12" WF 53# 2 Rs-10"x 1/2"	23.09	19.29	23.09	33.091			+65	+143	+208	+131			+339			+17.57			+18.0		+347	-.0099	33'-0 31/32"	-.0103	+.0031	L_4U_5
U_5L_6	2 Cs-12-30# - 2 Cov. Rs-11"x 5/8" 2 Web Rs-12"x 5/8"	39.21	34.83	37.77	38.600	4.38	105.7	-87	-183	-270	-158			-428			-12.28			-12.2		-425	+.0092	38'-7 5/16"	+.0094	-.0030	U_5L_6
L_6U_7	do	39.21	34.83	37.77	37.823	4.38	103.6	-83	-172	-255	-161			-416			-11.93			-12.32		-429	+.0085	37'-9 31/32"	+.0077	-.0028	L_6U_7
U_7L_8	12" WF 53# 2 Rs-10"x 5/16"	24.34	20.29	24.34	33.128			+65	+142	+207	+147			+354			+17.45			+18.0		+365	-.0094	33'-1 7/16"	-.0082	+.0030	U_7L_8
L_8U_9	2 CAR Cs 2 Cs-12-55# 2 Cov. Rs-11"x 1/2"	28.77 / 28.77	24.96 / 25.02	27.99 / 27.99	32.482	4.60 / 4.60	79.5 / 84.8	-48	-109	-157	-146			-303			-12.11			-15.20 / -15.20		-338 / -338	+.0062	32'-5 27/32"	+.0050	-.0019	L_8U_9
U_9L_{10}	12" WF 45#	13.24	10.94	13.24	31.358			+20	+47	+67	+110			+177			+16.18			+18.0		+197	-.0053	31'-4 7/32"	-.0064	+.0016	U_9L_{10}
$L_{10}U_{9A}$	do	13.24	10.94	13.24	30.778			+20	+46	+66	+109			+175			+15.98			+18.0		+197	-.0051	30'-9 9/32"	-.0046	+.0016	$L_{10}U_{9A}$
$U_{9A}L_{8A}$	Same as L_8U_9	28.77	25.02	27.53	33.128	4.60	86.4	-48	-112	-160	-149			-309			-12.34			-13.18		-329	+.0064	33'-1 8/16"	+.0074	-.0019	$U_{9A}L_{8A}$
$L_{8A}U_{7A}$	Same as U_7L_8	24.34	20.29	24.34	32.482			+64	+139	+203	+144			+347			+17.10			+18.0		+365	-.0090	32'-5 11/16"	-.0080	+.0028	$L_{8A}U_{7A}$
$U_{7A}L_{6A}$	Same as L_6U_7	39.21	34.83	37.77	38.600	4.38	105.7	-84	-176	-260	-163			-423			-12.14			-12.2		-425	+.0089	38'-7 5/16"	+.0094	-.0029	$U_{7A}L_{6A}$
$L_{6A}U_{5A}$	Same as U_5L_6	39.21	34.83	37.77	37.823	4.38	103.6	-85	-180	-265	-154			-419			-12.02			-12.32		-429	+.0089	37'-9 31/32"	+.0077	-.0028	$L_{6A}U_{5A}$
$U_{5A}L_{4A}$	Same as L_4-U_5	23.09	19.29	23.09	33.758			+66	+146	+212	+136			+344			+17.82			+18.0		+347	-.0103	33'-8 31/32"	-.0106	+.0032	$U_{5A}L_{4A}$
$U_{4A}L_{2A}$	Same as U_5L_4	25.83	22.08	24.59	33.091	4.73	84.0	-48	-111	-159	-124			-283			-12.81			-13.24		-292	+.0071	33'-1 5/16"	+.0080	-.0022	$L_{4A}U_{3A}$
$U_{3A}L_{2A}$	Same as L_2U_3	11.77	9.71	11.77	31.358			+23	+53	+76	+94			+170			+17.50			+18.0		+175	-.0067	31'-4 7/32"	-.0064	+.0020	$U_{3A}L_{2A}$
$L_{2A}U_{1A}$	Same as U_1L_2	11.77	9.71	11.77	30.778	1.94	190.3	+15	+35	+50	+103			+153			+15.76			+18.0		+175	-.0044	30'-9 9/32"	-.0046	+.0013	$L_{2A}U_{1A}$
$U_{1A}L_{0A}$	Same as L_0U_1	28.77	25.02	27.53	31.358	4.60	81.8	-49	-112	-161	-157			-318			-12.71			-13.32		-333	+.0061	31'-4 8/16"	+.0066	-.0019	$U_{1A}L_{0A}$
U_0L_0 U_0L_2 U_0L_{0A}	12" WF 40#	11.77		11.77	17.0	1.94	103.2	-76 @ U_0 -13@26.10	-21 @ U_{1A} -42 @ 26.10	-28 @ U_0 -55 @ 26.10	-64 @ U_0 -63 @ 26.10			-92 @ U_0 -118 @ 26.10						-12.23		-144	+.0013 @ U_0 +.0026 @ 26.10	17'-0" @ U_0 17'-0" @ 26.10	0 +.0026	-.0003 @ U_0 -.0006 @ 26.10	U_0L_0 U_0L_2 U_0L_{0A}
U_4-L_4	12" WF 53#	15.59		15.59	21.0	2.48	101.6	-13	-42	-55	-63			-118						-12.41		-193	+.0025	21'-0 3/32"	+.0026	-.0006	U_4L_4
U_6-L_6	12" WF 65#	19.11		19.11	28.0	3.02	111.3	-15	-42	-57	-63			-120						-11.9		-228	+.0028	28'-0 1/32"	+.0026	-.0007	U_6L_6
U_8L_8	12" WF 40#	11.77		11.77	20.0	1.94	123.7	-13	-42	-55	-63			-118						-11.16		-131	+.0031	20'-0 1/32"	+.0026	-.0007	U_8L_8
U_1L_1 etc. U_5L_5	12" WF 40#	11.77	9.71	11.77	24.5 (MAX)	1.94	151.4 (MAX)	+4.0@1-3-9 +3.0@5-7	0	+4@1-3&9 +5@3&7	0			+5 (MAX.)						+18.0		+175	-.0003 MAX.	NOMINAL	0	+.0003 max.	U_1L_1 etc. U_5L_5

* W1 AND W2 EACH GOVERNED BY MINIMUM REQUIREMENT VIZ:
300 LBS. PER LIN. FT. ON TOP CHORD
150 LBS. PER LIN. FT. ON BOTTOM CHORD

‡ INCLUDES ELECTRIC POWER CABLES ON SOUTH TR. (EST. WT. = 45 LBS. PER FT.)

STANDARD	COMPUTED	R.B. Murphy
	CHECKED	R.D. Hansen
	DRAWN	R.B.M. Hunsley
	CHECKED	R.D.H.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
A.T. Goodrich BRIDGE ENGINEER
PASSED H.E. Sherman ENGINEER OF DESIGN
APPROVED Ernest Lieberman DEPUTY HIGHWAY ENGINEER
APPROVED 2-15-46 W.W. Pack CHIEF HIGHWAY ENGINEER

Rev 2-7-46 R.B.M.

STRESS TABLES - SPANS 15-16-17
ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F. A. RTE. 172 - SECT. 15-E-F
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E P	Peoria Tazewell	94	57

FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT - 609A

SHEET NO. 26
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F. RL

Open holes in bott. flg. North Truss. For Details of Ladder Conn's to North Truss, see Sheet #34

Floor Beam

Bevelled Fill 11" @ ℄. Tack weld to lateral ℓ before reaming.

3'-0" clr. Maximum

1'-9½" Min.

Interior Stay ℓs 19¼" x ⅜" x 1'-3" @ 4'-3" max. cts.

⅜" ℓs - Top (Notch for vertical)

Floor Beam

Bevelled Fill-11" @ ℄. Tack weld to lateral ℓ before reaming.

1'-9½" Min.

3" x ½" Spl. ℓs - Bott. Flange

2¾" Max.

2½"x2½"x⅜" R.A.

2¾" Max.

Tie Bars 2¼" x ⅞"

45° Double Lacing 2¼" x ⅞"

¾" Rivets

Bevelled Fill 11" @ ℄

45° D.L. 2¼" x ⅞"

Tie bar 2¼" x ⅞"

¾" Rivets

End Stay ℓs-19¼"x⅜"x2'-0"

Stay ℓs - 19¼" x ⅜" x 2'-11"

1'-4" Min.

1'-4" Min.

2½"x2½"x⅜" R.A.

⅜" ℓs - Top and Bottom (Notch for vertical)

⅜" ℓs - Top & Bott. (Notch for vertical)

Top Laterals All Panels 12WF25#

⅜" ℓs Bott. Flg. N.S.

All Top Struts 2 15" - 5" x 5" x ⅜"

Crown of Rdwy. @ U 0/7

Fl. Bm - 24" WF 74# ⑤ For Details see Sheet #22

For Ladder Details for North Truss, see Sheet No. 34

Lateral Diagonal

Top Strut 2 7" 5" x 5" x ⅜"

⅜" ℓs

Diagonals 2 Ls - 3½" x 4" x ⅜" ⅜" b. to b. Lg

⅜" ℓs

Mill

(Stitch Rivets @ 1'-0" cts.

Pc. 14" WF 53#

21" WF 91#

Mill Diaph., ℄ and gussets

Diaph. 12" WF 40#

2 Ls 4" x 4" x ¾"

2 Ls 4" x 4" x ¾"

2 Ls 4" x 4" x ¾"

Stiffs - 4 @ 3½" ℓs (Fin. 2 ends)

½" Fin.

℄ Chord to bott. of Bm. @ Lo

Mill Fl. Bm. & Conn Ls

For Conn. to Catwalk on North Truss, see Sheet #34

℄ Chord

2 Ls - 7" x 4" x ¾"

7½"

7½"

1'-2"

Top of Masonry

Lo

1'-6"

2'-6"

For Detail of End Brgs. see Sheet #33

2'-0" c. c. Holes

1'-0" Alt. top & bott.

7½"

11"

5"

⅝" ø

TYPICAL DETAIL - PERFORATED COVER PLATES

Mill Uo Lo

6¾"

Uo

2 L - 3½" x 4" x ⅜"

⅜" ℓs - F.S.

½" ℓs N.S.

UoU1 2 Ls - 12" - 20.7#

Rivet in Top Flange O. H. in Top Flg.

TYPICAL TOP LATERAL INTERSECTION

1 L - 9" x 2½" x 7/16" (N.S. & F.S.)

⅜" ℓs

Close joint

Chord to Bot. of Fl. Bm.

6¾" Mill Uo Ls

1'-1⅛" b.b.

⅜" Rivets

2 Fills 9" x 7/32"

6" x 4" x ⅜"

2 Spl. ℓs 9" x ⅜" O.S.

2 Spl. ℓs - 9" x ⅜" Ins.

6" Sp. Max.

1'-1⅛" b.b.

2 Fills 9" x 7/16" inside

2 ℓs - ½"

U2

Mill U2 Ls

6¾"

Top Chord on - 2.04% Grade throughout

U1 - U3 2 Ls - 12" - 30# 2 WEB ℓs - 11" x 7/16"

⅜" ℓs - F.S.

Mill

2 Spl. ℓs 9" x ⅜" O.S.

UoLo 12" WF 40#

⅛" Fill F.S.

2 Ls - 3½" x 3½" x ½"

2 Ls - 3½" x 9½" x ½"

2 CAR Ls 2 COV. ℓs - 11" x 3/8" 12" - 35#

2 ℓs - ½"

See Sh. #34

3 @ 3½" = 2 @ 4½" 6" Spaces max.

¾" ø Rivets

5" x 7½" Holes @ 1'-0" alt. cts. Top & Bott.

1'-4½" Minimum

5" x 7½" Hole Top ℓs

1'-2½"

LoU1

2 - 14" x 2½" x ½" weld to guss. at with ⅜" c.f.w.

LoL2 12" WF 65#

L1

U1 L1 12" WF 40#

U1 - L2 12" WF 40#

⅛" Fill - F.S.

⅜" Fill - F.S.

2 ℓs - 7/16"

8" x 7/16" Fill - N.S.

8" x 7/16" Fill - N. S.

U2 L2 12" WF 40#

⅛" Fill - F.S.

⅛" Fill - F.S.

2 - 1½" ℓs

L2 - U3 12" WF 40

4 - ½" Spl. ℓs Ls.

Close joint

L2

L2 - L3 12" WF 65#

5'-0"

8'-0"

8'-0"

2" ø Drains

5'-0"

8'-0"

8'-0"

2" ø Drains

15/16" ø Drains

2 L - 3½" x 4" x ⅜"

⅜" ℓs

Bottom Laterals (All Panels) 2 ℓs - 3" x 4" x 5/16"

Jacking Bm. 27" WF 91#

For Conn. to Catwalk see Sh. #36

1'-6" all. cts. max.

5" - ⅞" ℓs.

⅜" ℓs

All Bottom Struts 2 7" - 5" x 5" x ⅜"

Pc. 12" WF 40#

Clip L - 5" x 5" x ⅜"

Pc. 12" WF 65# (Cut and weld)

2 ℓs 9" - ⅜" (Bent)

Clip L 5" x 5" x ⅜"

Clip L's set & welded for shipment

Clip L's to be riveted after Bent Chord cont's is riveted.

4" - 3½" - ⅜" Clip L (F.S.)

2'-0" Cors Lgth. ℓs

4" - 3½" - ⅜" Clip L (N.S.)

4" - 3½" - 5/16" Lat. L (N.S.)

4" - 3½" - 5/16" Lat. L (F.S.)

camber all long diagonals from 3" to 3½" at mid point for sag. Bend to a parabola.

camber all st-uts ½" at mid point for sag. Bend to a parabola.

℄ Bridge

TYPICAL BOTTOM LATERAL INTERSECTION (8 holes for conn's in Panels L1 to L2)

Rivets - ⅞" ø unless noted.
For General Notes see Sheet # 57
For Details of Catwalk see Sheet No. 34

STANDARD	COMPUTED	R.C.M. July.
	CHECKED	R.W. Hansen
	DRAWN	R.C.M. HENRY D. TEPAT
	CHECKED	R.W.H.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
H. F. Bruns BRIDGE ENGINEER

PASSED H. E. Surman ENGINEER OF DESIGN

APPROVED Ernst Hansen DIVISIONAL ENGINEER

APPROVED 5-15-46
W. W. Bork CHIEF HIGHWAY ENGINEER

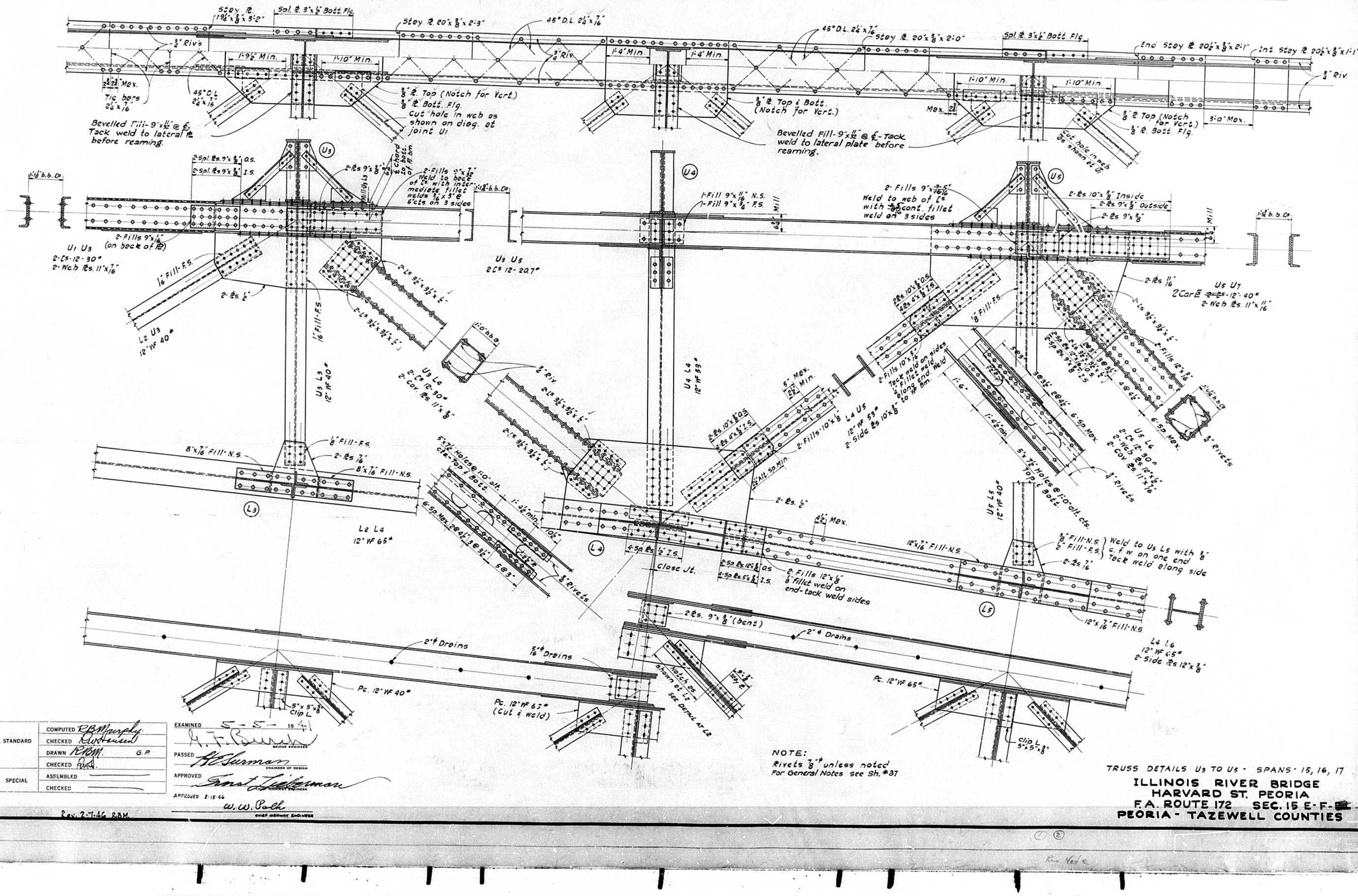
Rev 2-7-46 R.B.M.

TRUSS DETAILS - Uo TO U2 - SPANS 15-16-17
ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F. A. RTE. 172 - SEC. 15 E-F-[illegible]
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15-E F	Peoria Tazewell	94	58
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 27
63 SHEETS SEC. 15-E
70 " SEC. 15-D-E-F-RL



NOTE:
Rivets ⅞" ϕ unless noted
For General Notes see Sh. #37

STANDARD	COMPUTED	R.B. Murphy
	CHECKED	Kurtzweil
	DRAWN	R.B.M. G.P.
	CHECKED	[illegible]
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
A. T. Burch BRIDGE ENGINEER
PASSED H. E. Surman ENGINEER OF DESIGN
APPROVED Ernest Lieberman CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46
W. W. Polk CHIEF HIGHWAY ENGINEER

Rev. 2-7-46 R.B.M.

TRUSS DETAILS U3 TO U5 - SPANS - 15, 16, 17

ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 SEC. 15 E-F-RL
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	59
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -	609A	

SHEET NO. 28
63 SHEETS SEC. 15E-F
70 " SEC. 15E-F-P.L.

HALF SECTION AT U6L6

TRUSS DETAILS U6-U8 SPANS 15-16-17
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F. A. RTE. 172-SEC. 15-E-F-[redacted]
PEORIA - TAZEWELL COUNTIES

STANDARD	COMPUTED	R.F.Murphy
	CHECKED	Cardwell
	DRAWN	R.B.M. HENRY D. TREFT JR.
	CHECKED	Burt
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5- 1941
H. T. Bruce BRIDGE ENGINEER
PASSED H. C. Sherman ENGINEER OF DESIGN
APPROVED Frank J. Lieberman CHIEF HIGHWAY ENGINEER
APPROVED 8-15-46 W. W. Bach CHIEF HIGHWAY ENGINEER

Rev. 7-1-46 R.B.M.

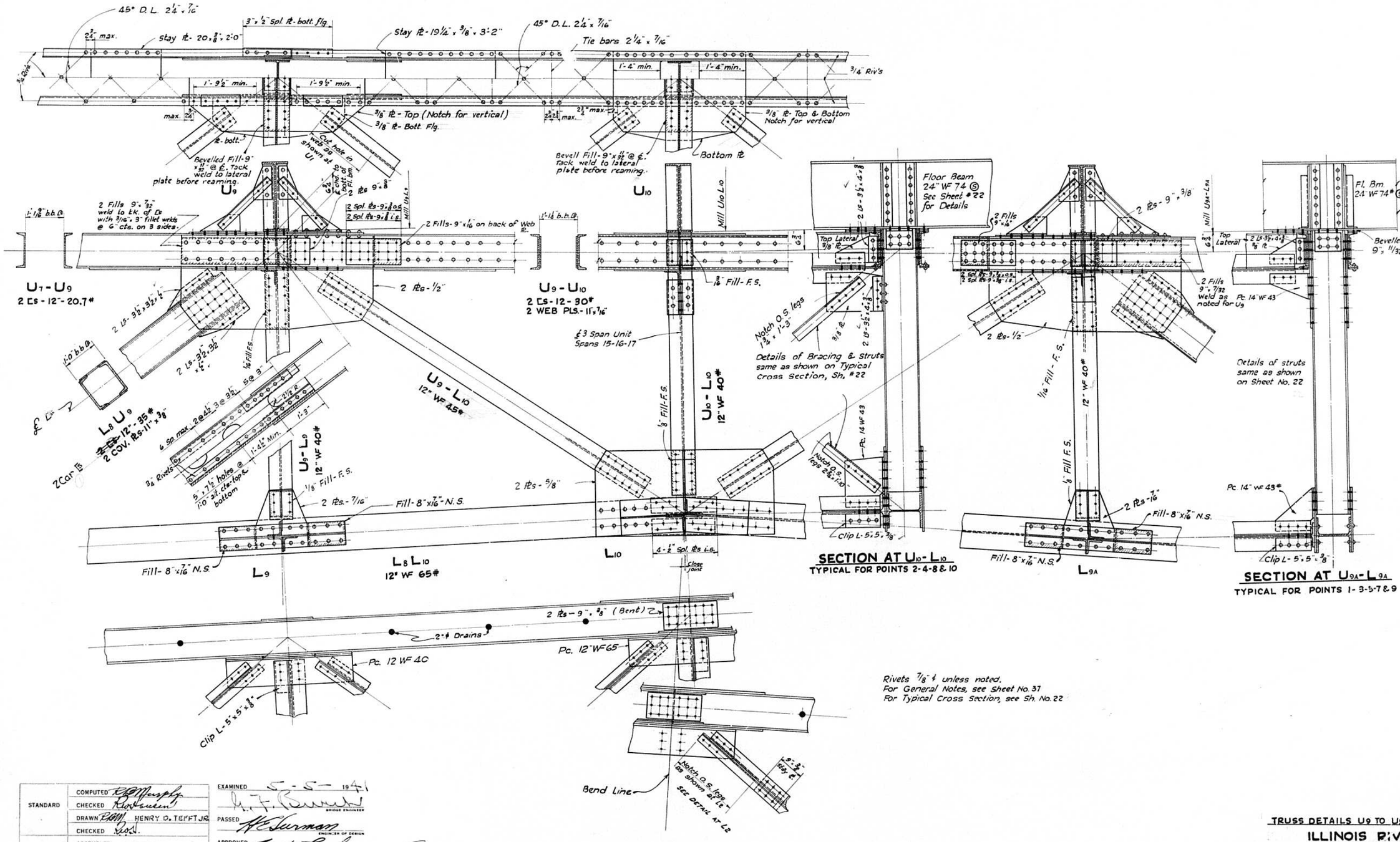
NOTE - Milling of joints L6 & L6A shall be done after all shop rivets therein have been driven and with the Temporary Diaphragms firmly bolted in place.

NOTE: Rivets 7/8" ϕ unless noted. For General Notes see Sh. # 37

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E P	Peoria Tazewell	94	60
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 29
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F P.L.



Rivets 7/8" ϕ unless noted.
For General Notes, see Sheet No. 37
For Typical Cross Section, see Sh. No. 22

STANDARD	COMPUTED	R.B.M. Murphy
	CHECKED	Rlorkuen
	DRAWN	R.B.M. HENRY O. TEFFT JR
	CHECKED	R.O.V.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
M. F. Burman BRIDGE ENGINEER
PASSED W. E. Sherman ENGINEER OF DESIGN
APPROVED Ernst Lieberman HIGHWAY ENGINEER
APPROVED 2-15-46
W. W. Pash CHIEF HIGHWAY ENGINEER

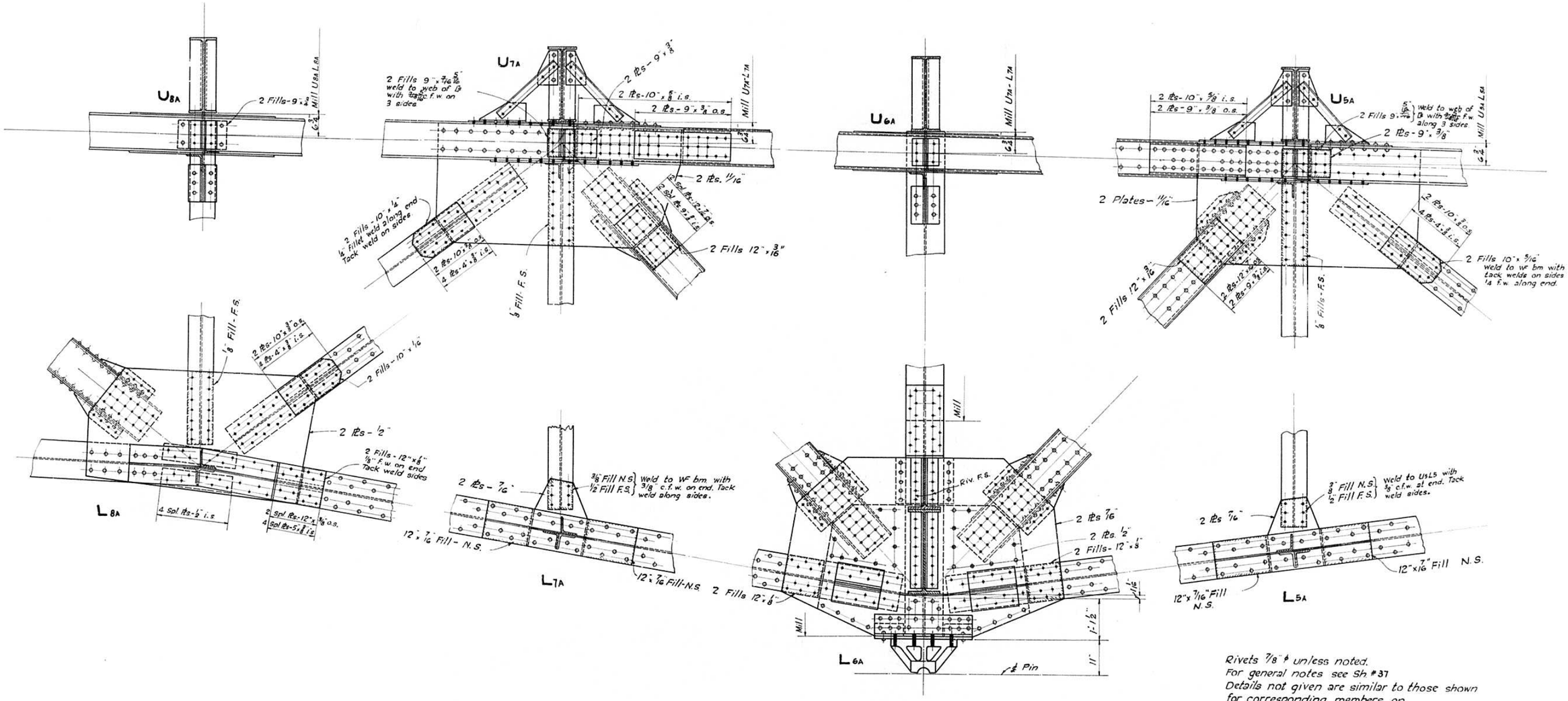
Rev 2-7-46 R.B.M.

TRUSS DETAILS U9 TO U9A - SPANS 15-16-17
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F. A. RTE. 172 - SEC. 15-E-F-[illegible]L
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15E P	Peoria Tazewell	94	61
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 609 A		

SHEET NO. 30
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F-BL



Rivets 7/8" ϕ unless noted.
For general notes see Sh #37
Details not given are similar to those shown for corresponding members on west half of unit.

STANDARD	COMPUTED	R.B.Murphy
	CHECKED	Rust Larsen
	DRAWN	R.B.M. HENRY D. TERFT
	CHECKED	Rust.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
A.T. Burch BRIDGE ENGINEER
PASSED H.C. Sherman ENGINEER OF DESIGN
APPROVED Ernest J. Lieberman STATE ENGINEER
APPROVED 2-15-46 W. W. Bolt CHIEF HIGHWAY ENGINEER

Rev. 2-7-46 R.B.M.

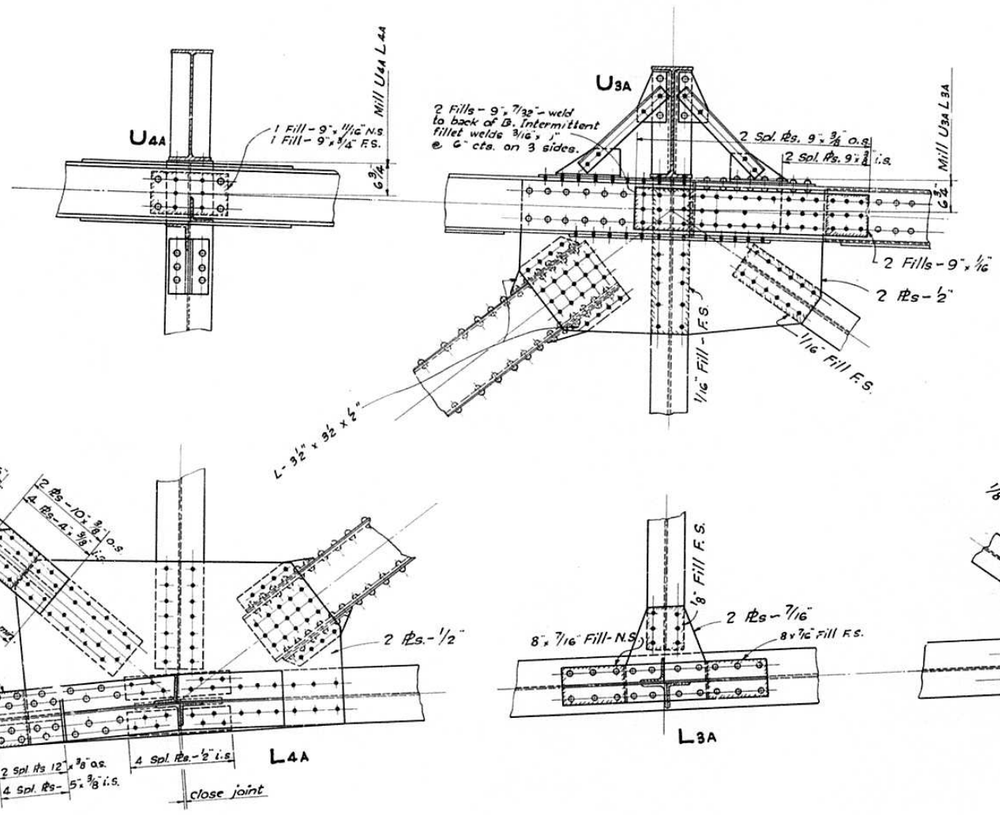
TRUSS DETAILS-U8A TO U5A — SPANS 15 - 16 - 17
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F. A. RTE. 172- SEC. 15 E; F.-[redacted]
PEORIA - TAZEWELL COUNTIES

① ②
Rev Note

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 31
63 SHEETS SEC. 15E
70 " SEC. 15-D-F RL



Rivets 7/8" ℄ unless noted.
For General Notes see Sheet # 37
Details not given are similar to those shown for corresponding members on West half of unit.

STANDARD	COMPUTED	R.B. Murphy
	CHECKED	C.W. Hansen
	DRAWN	R.B.M. HENRY O. TEFFT, JR.
	CHECKED	Fuck.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
A.T. Bruce BRIDGE ENGINEER
PASSED A.C. Sherman ENGINEER OF DESIGN
APPROVED Ernest J. Waterman CHIEF HIGHWAY ENGINEER
APPROVED 5-15-41
W.W. Bath CHIEF HIGHWAY ENGINEER

TRUSS DETAILS U4A - U0A - SPANS 15-16-17

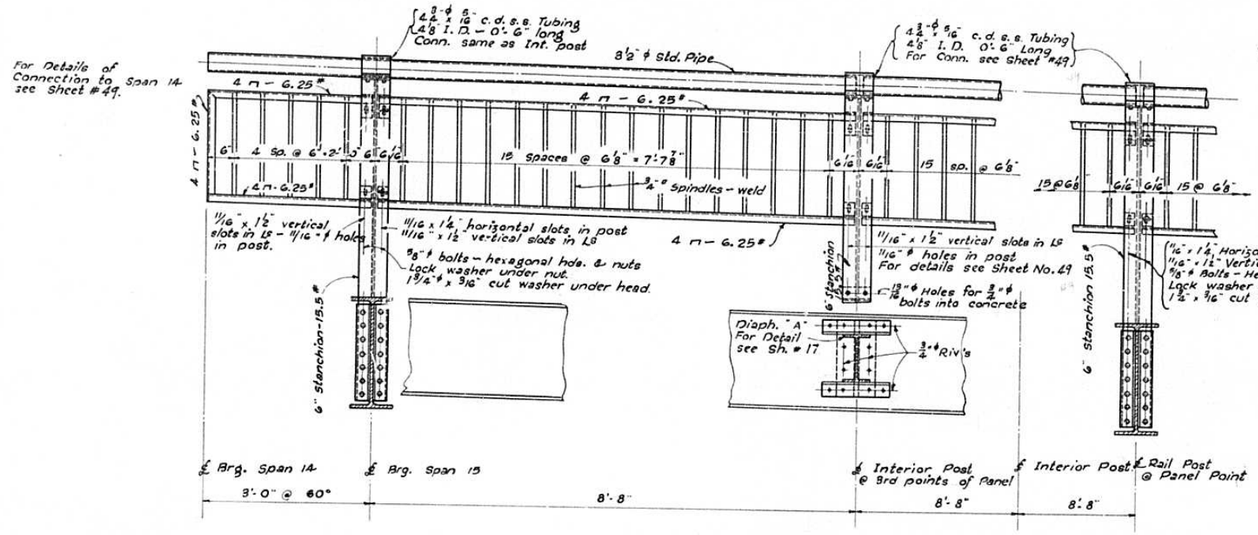
ILLINOIS RIVER BRIDGE
HARVARD STREET - PEORIA
F.A. RTE. 172 - SEC. 15 - E - F - RL
PEORIA - TAZEWELL COUNTIES

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

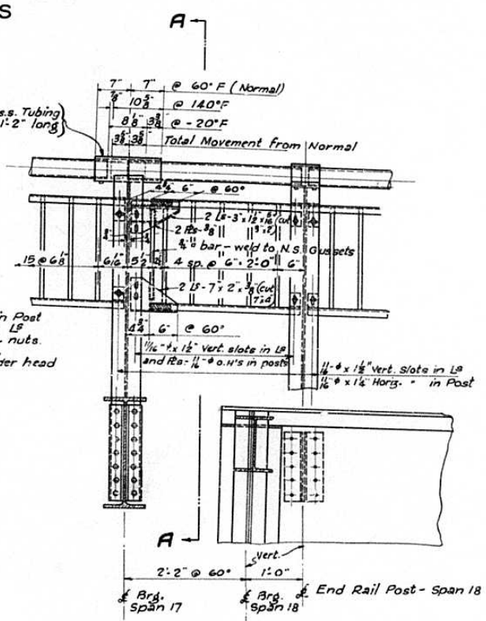
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	63

FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT - 689A

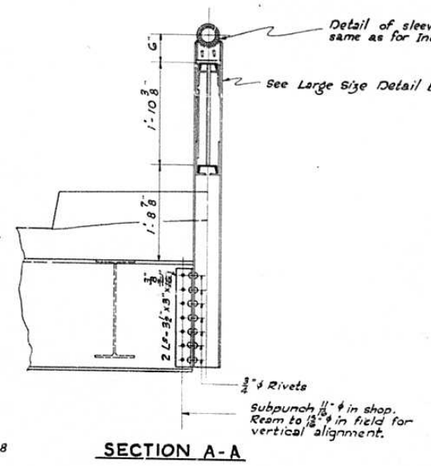
SHEET NO. 32
63 SHEETS SEC. 15-E
70 - SEC. 15-F P.L



END RAIL POST SPAN 15 | INTERMEDIATE RAIL POST | PANEL POINT RAIL POST



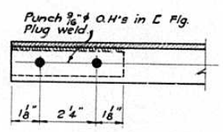
END RAIL POST SPAN 17 | END RAIL POST SPAN 18



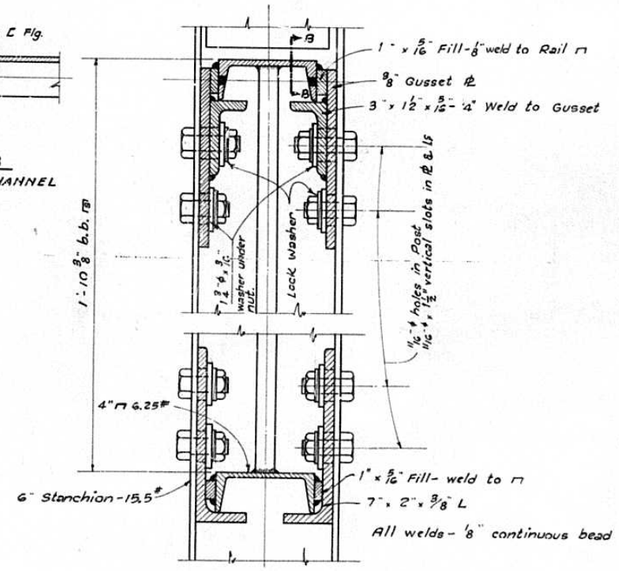
SECTION A-A

TYPICAL RAILING DETAILS - SPANS 15-16-17

FOR TYPICAL PANEL AND DETAILS OF DIAPHRAGM "A" SEE SHEET No. 17 FOR TYPICAL INTERIOR RAIL POST DETAILS SEE SHEET No. 49
Quantity included in Item 'Structural Steel' - Bill of Material - Sheet # 23.



VIEW B-B
END OF CHANNEL



DETAIL AT END RAIL POST - SPAN 17
SCALE 4" = 1'-0"

STANDARD	COMPUTED	R.B. Murphy
	CHECKED	Rut Hansen
	DRAWN	C.B.M. HENRY D. TEFFT JR.
	CHECKED	Post
SPECIAL	ASSEMBLED	
	CHECKED	

Rev 7-1-46 A.L.

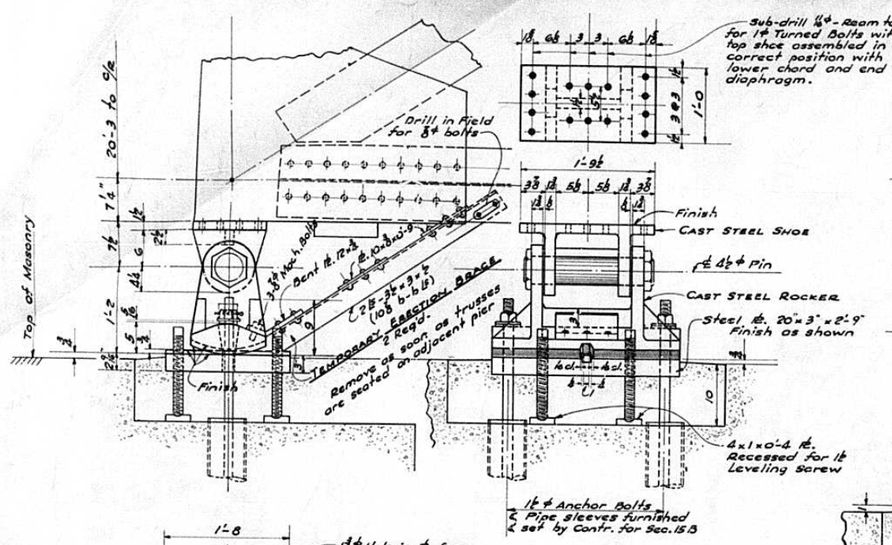
EXAMINED 5-5- 1941
H. F. Burch BRIDGE ENGINEER
PASSED H. E. Furman ENGINEER OF DESIGN
APPROVED Ernest Lieberman STATE HIGHWAY ENGINEER
APPROVED 2-15-46
W. W. Polk CHIEF HIGHWAY ENGINEER

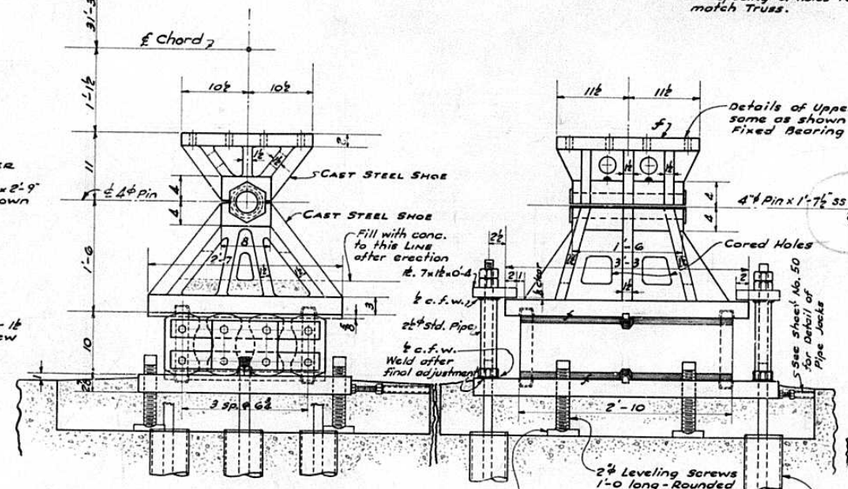
RAILING DETAILS - SPANS 15-16-17
ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F. A. RTE. 172 - SECTION 15 E-F-[illegible]
PEORIA TAZEWELL COUNTIES

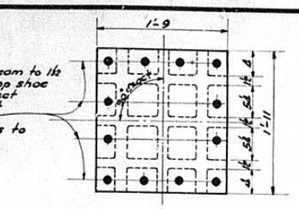
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

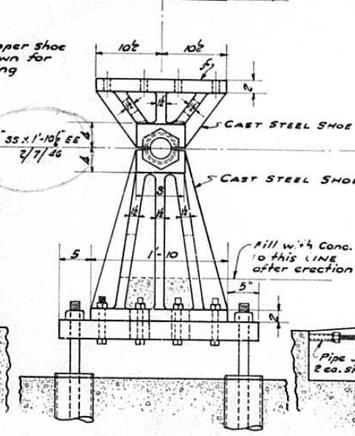
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E P	Peoria Tazewell	94	64
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 419A		

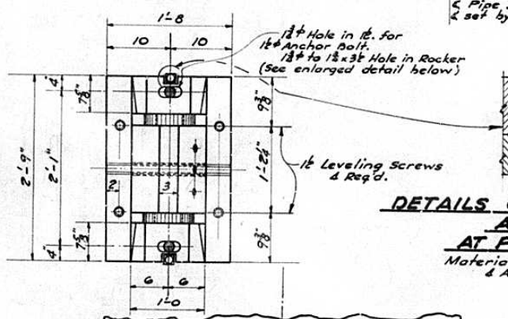
SHEET NO. 33
63 SHEETS SEC. 15-E
70 " SEC. 15-D & P.L.





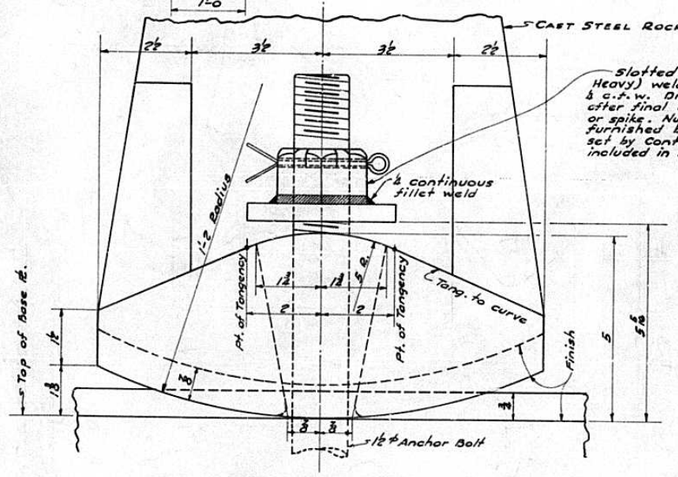






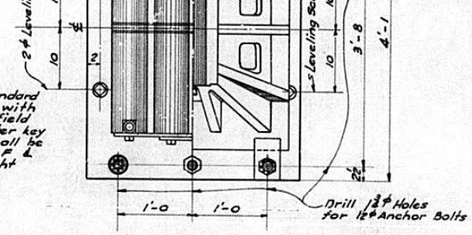
DETAILS OF EXPANSION BEARINGS AT L6 AND L6A AT PIERS 13 AND 16

Material for One Assembly Shown
4 Assemblies Required



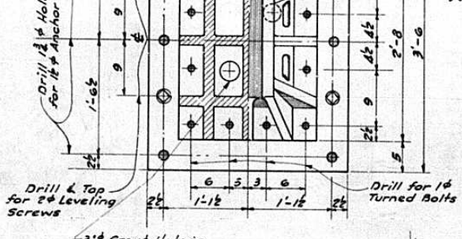
ANCHOR BOLT DETAIL AT L6 & L6A

Scale 6" = 1'-0"



DETAIL OF EXPANSION BRG. AT PIER 15

Material for One Assembly Shown
2 Assemblies Required



DETAIL OF FIXED BEARING AT PIER 14

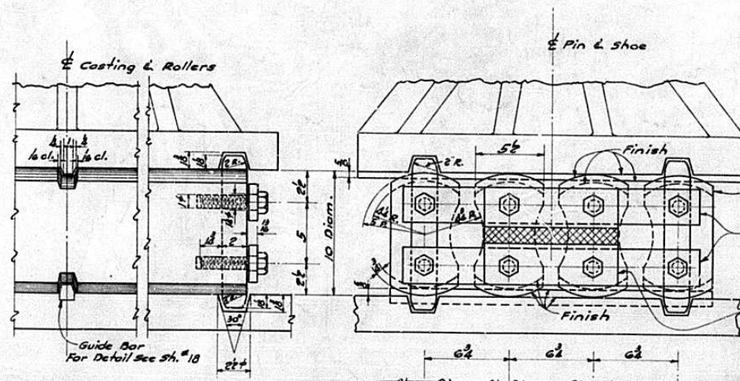
Material for One Assembly Shown
2 Assemblies Required

NOTES:-

All Castings shall be Cast Steel A.S.T.M. Specs. A-27-36T Grade B-1 Cast Steel in Bill of Material. Weight of all other on this sheet is included in item 'Structural Steel', in Bill of Material.

Pits under Bearing Pls., shall be filled with Inco or equal cement concrete by Contractor for Sec. 15E, after bearing Pls., are adjusted to final elevations. Cost of this concrete and concrete in casting pockets shall be included in price bid for Erecting Structural Steel. After concrete has set, remove leveling screws and grout holes.

Shop shall scribe ℄ of Bearing on ends of Rockers, Castings, & Bearing Pls, & ℄ of plate on Roller Lock Plates.

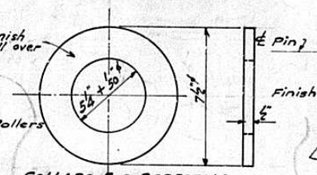


DETAILS OF SEGMENTAL ROCKERS, TOOTH BARS AND LOCKING PLATES

Scale 2" = 1'-0"

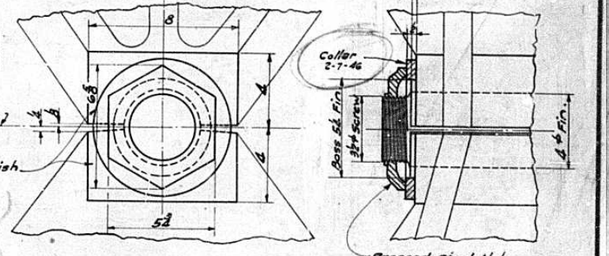
BILL OF MATERIAL

Sec. 15-E.R.B.	Structural Steel (carbon)	Lbs.	14,260
	Cast Steel	Lbs.	13,650



COLLARS FOR PEDESTALS PIERS 14 & 15
8 Req'd 2/7/46 - A.L.T.

2 Lock Plates - 8 x ½ x 0'-10½
Drill for position as determined for temperature & truss deformation. Information for drilling will be furnished to the fabricator when landing temperature has been estimated by the Erector.
The cross-hatched portion shall be flame cut as soon as landing h.s been made on next pier.



DETAIL OF PIN AND NUT FOR BEARING AT L6 AND L6A

STANDARD	COMPUTED	R.B. Murphy	
	CHECKED	Rud Jansen	
	DRAWN	R.B.M. F.R. Mahlberg	
	CHECKED	Rud.	
SPECIAL	ASSEMBLED		
	CHECKED		

EXAMINED 5-5-1941
A. T. Burch BRIDGE ENGINEER
PASSED H. Peterman ENGINEER OF DESIGN
APPROVED Ernest Johnson STATE HIGHWAY ENGINEER
APPROVED 8-15-46
W. W. Polk STATE HIGHWAY DIRECTOR

Rev. 2-14-46 - A.L.T. - R.B.M.

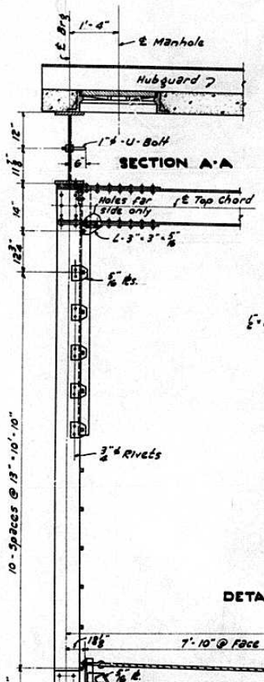
BEARING DETAILS-SPANS 15-16-17
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 - SECTION 15E-E-P
PEORIA-TAZEWELL COUNTIES

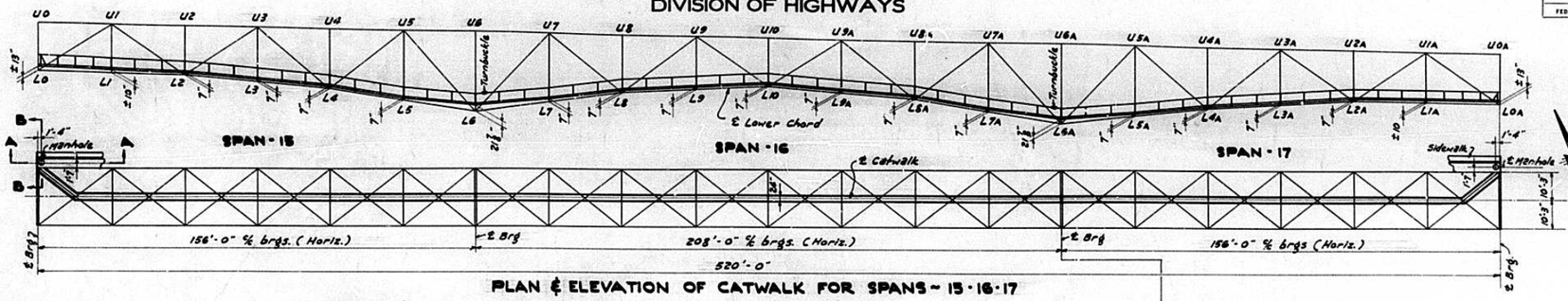
Add Collar
Change Nut

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

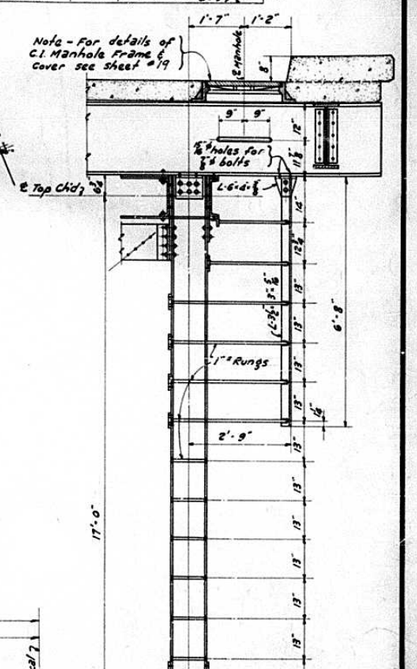
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D E,F	Peoria	44	17
		Tazewell	94	65
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

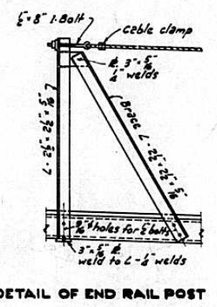
SHEET NO. 54
63 SHEETS SEC. 15-E
70 - SEC. 15-D-F-RL



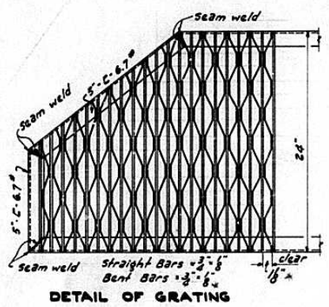


PLAN & ELEVATION OF CATWALK FOR SPANS - 15 - 16 - 17



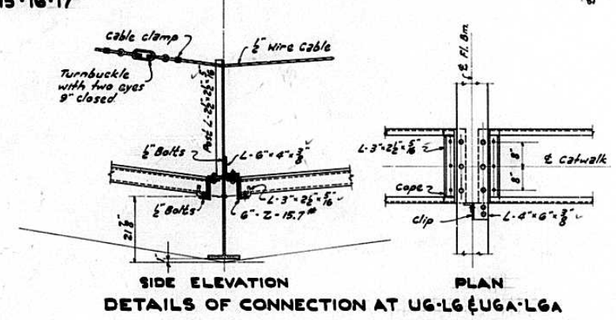


DETAIL OF END RAIL POST



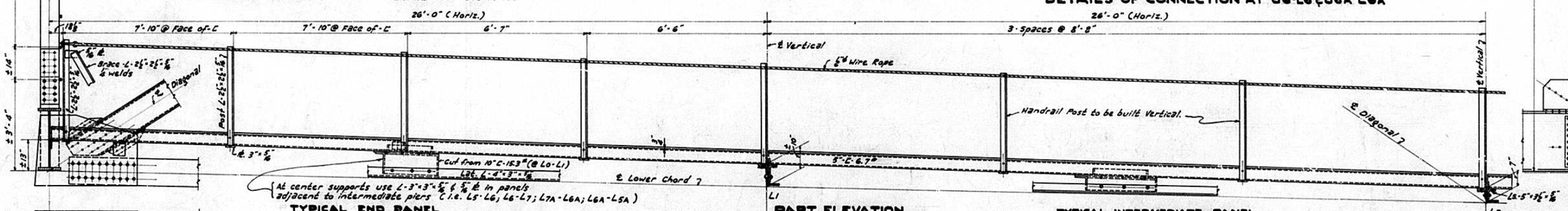
DETAIL OF GRATING

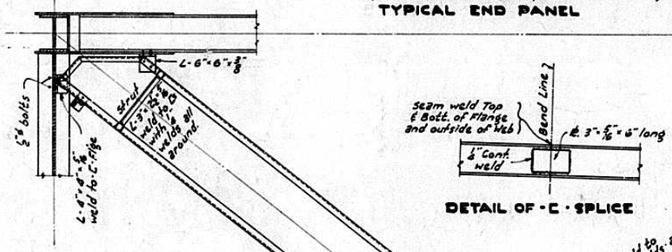
NOTE -
Catwalk Grating shall be Standard Spring Co. R 3/4 A or equal. Grating to be welded to 5" Cs. with 1/4" Fillet welds @ 12" cts. Catwalk between panel points to be fabricated as a unit.
Paint same as structural steel.
Wire Rope shall be 5/8" Standard steel strand, (or equal) galvanized, with seven wires twisted into a single strand, weighing not less than 1.16 lb. per ft. with a strength of not less than 7,000 lbs.
Rivets - 3/4" ϕ - Holes - 13/16" except as noted.
All welding shall be 1/4" Fillet Welds.
Cost of I- bolts, cable clamps and turnbuckles to be included in the contract unit price bid for 5/8" ϕ Wire Rope.
Provide one lock washer under nut on bolted connections.
For detail of C.I. Frame & Cover see Sheet No. 19

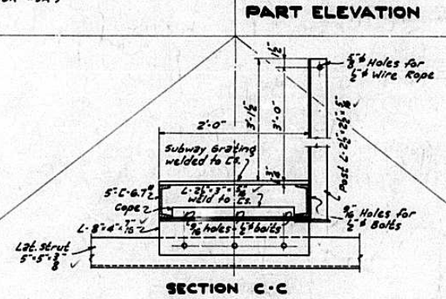


SIDE ELEVATION — PLAN

DETAILS OF CONNECTION AT U6-L6 & U6A-L6A



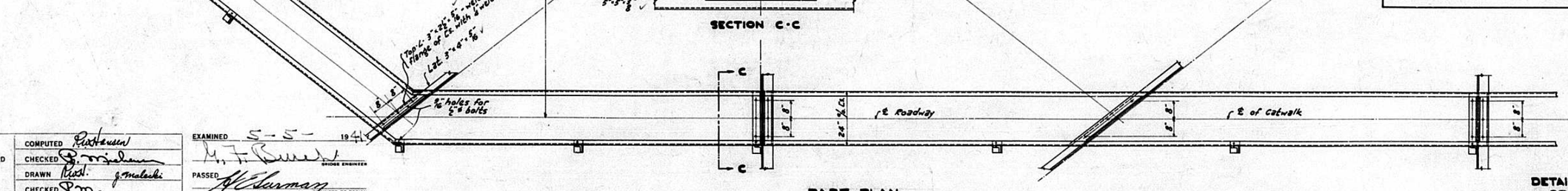




BILL OF MATERIAL - CATWALK SPANS 15-16-17

ITEM		SEC. 15-E.F.R
Structural Steel (Carbon)	Lbs.	11,780
Wire Rope	Lin. Ft.	531
Open Grid Floor	Sq. Ft.	1,046

ITEM		SEC. 15-D.P.
C.I. Frames & Covers	Lbs.	1,050



PART PLAN

STANDARD	COMPUTED	Rustenson
	CHECKED	G. Nielsen
	DRAWN	Rust. J. Maleski
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5- 1944
M. F. Bullard
BRIDGE ENGINEER
PASSED H. E. Burman
ENGINEER OF DESIGN
APPROVED Ernest Lieberman
HIGHWAY ENGINEER
APPROVED 5-15-44
W. W. Bark
CHIEF HIGHWAY ENGINEER

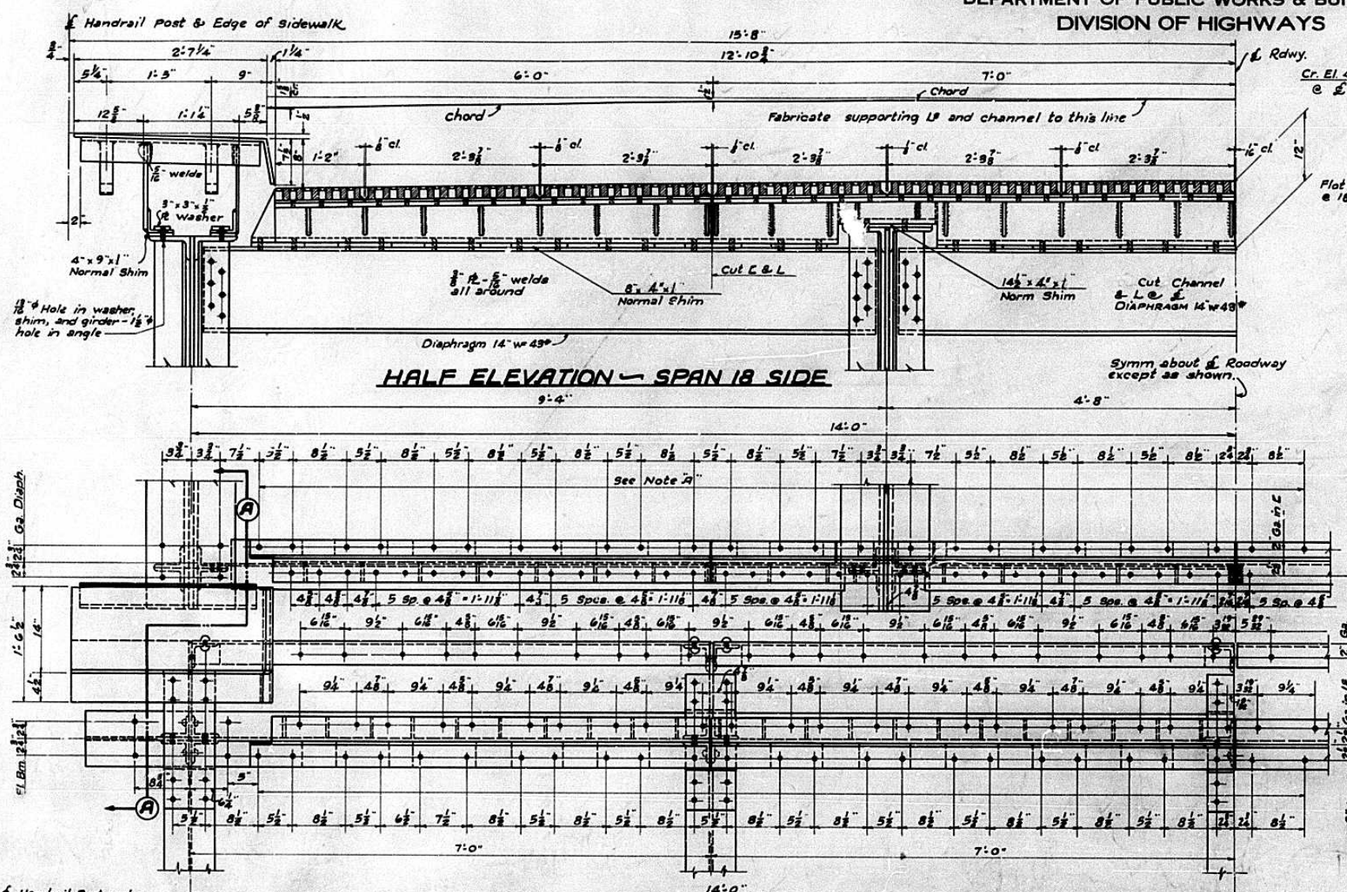
Rev. 3-7-46 ALT.

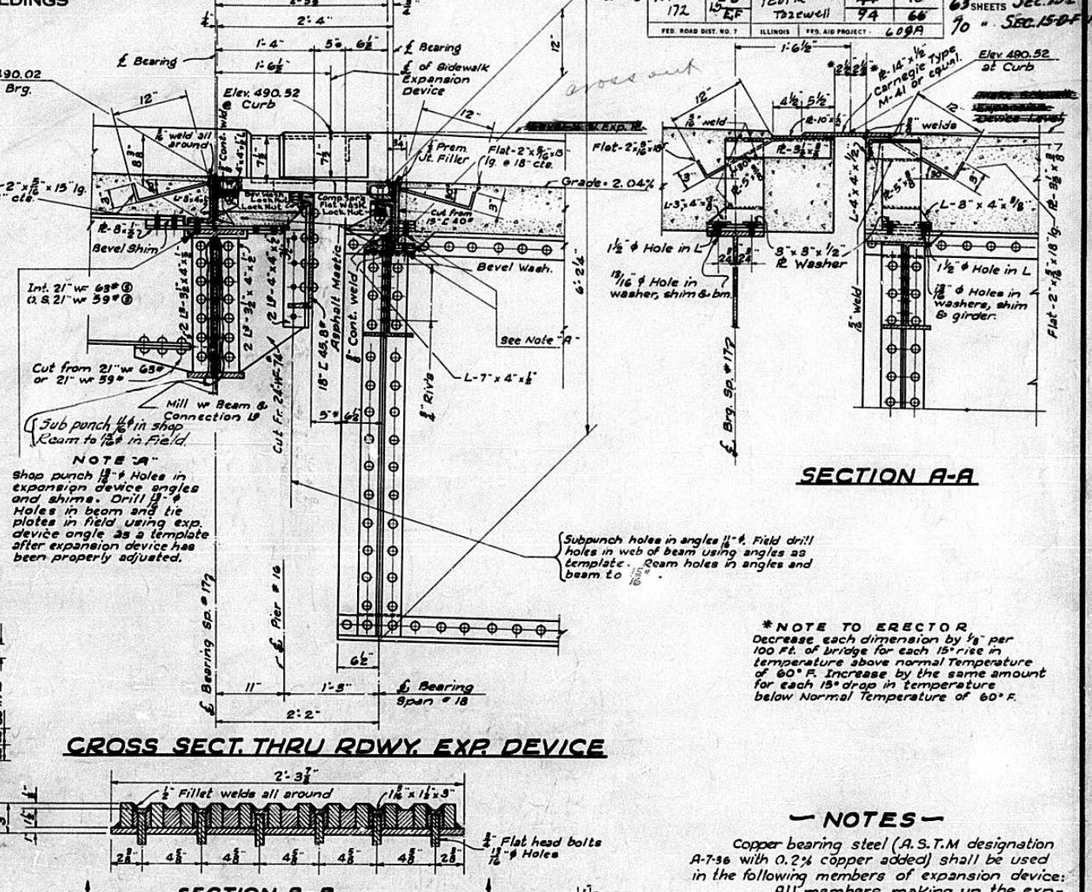
DETAIL OF CATWALK
- SPANS-15-16-17 -
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. RTE. 172 SEC. 15-D.E.F.
PEORIA - TAZEWELL COUNTIES

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

SURVEY/ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15-D	Peoria	44	18
	15-EF	Tazewell	94	66
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 35
63 SHEETS Sec. 15-E
70 " Sec. 15-D-F-A-L





*NOTE TO ERECTOR
Decrease each dimension by ⅛" per 100 Ft. of bridge for each 15° rise in temperature above normal Temperature of 60° F. Increase by the same amount for each 15° drop in temperature below Normal Temperature of 60° F.

— NOTES —

Copper bearing steel (A.S.T.M designation A-7-36 with 0.2% copper added) shall be used in the following members of expansion device:
All members making up the expansion finger units.
8"x 4"x ½" j 4"x 4"x ½" & 7"x 4"x ½" roadway angles & 4"x 4"x ½" sidewalk angle.
10"x ½" plate

Roadway and sidewalk expansion devices shall be assembled in the shop in their proper position with the two adjacent spans in place and shall be left for shop inspection.

Expansion device shall be fabricated with 1" normal shims between floor beam or diaphragms and expansion device supporting angle or channel. Normal shims shall be made up of 2-¼", 2-⅛" & 4-1/16" shims.

Use ⅞" ϕ rivets except as noted.

¾" ϕ flat head bolts, nuts, springs and washers shall be sheradized.

Paint (same as "Structural Steel")

Asphaltic mastic ½" premoulded Jt. Filler incl. in unit price bid for "Erecting Structural Steel."

BILL OF MATERIAL

Sec. 15-E	Structural Steel (Carbon)	Lbs.	9630
Sec. 15-F	Structural Steel (Carbon)	Lbs.	9630
Sec. 15-P	Structural Steel (Carbon)	Lbs.	9630

STANDARD	COMPUTED	R.O. Hansen
	CHECKED	[illegible]
	DRAWN	R.H.N. - HENRY TEFFT
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
H. F. Bushnell BRIDGE ENGINEER
PASSED W. C. Furman ENGINEER OF DESIGN
APPROVED Ernst Fiehrman DIVISION HIGHWAY ENGINEER
APPROVED 5-15-46
W. W. Bach CHIEF HIGHWAY ENGINEER

Rev. Nov 41 A.H.T.
Rev. 2-14-46 E.F.M.

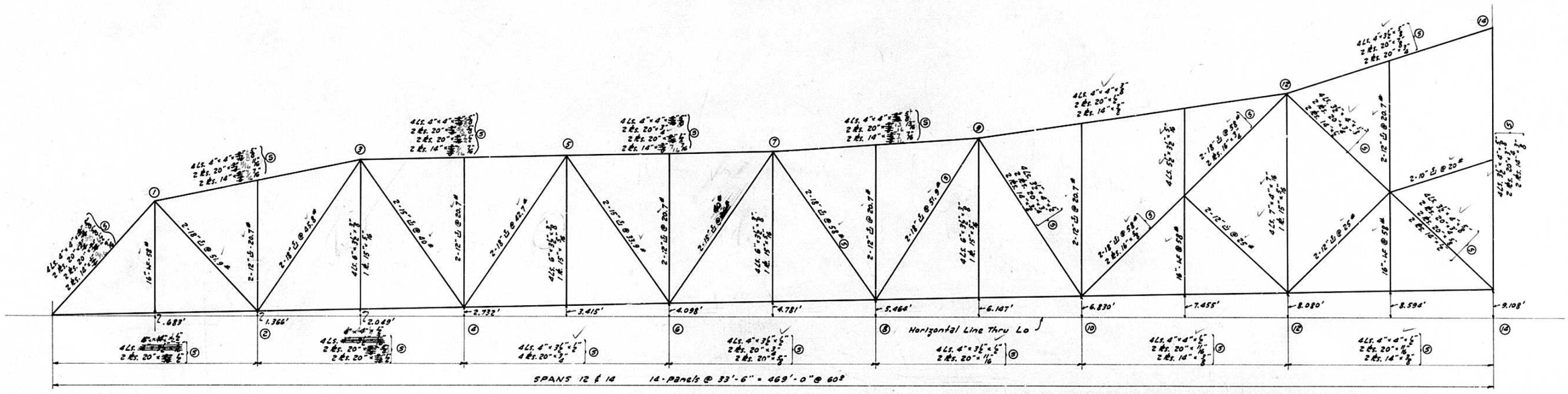
DETAIL OF EXPANSION DEVICE PIER 16

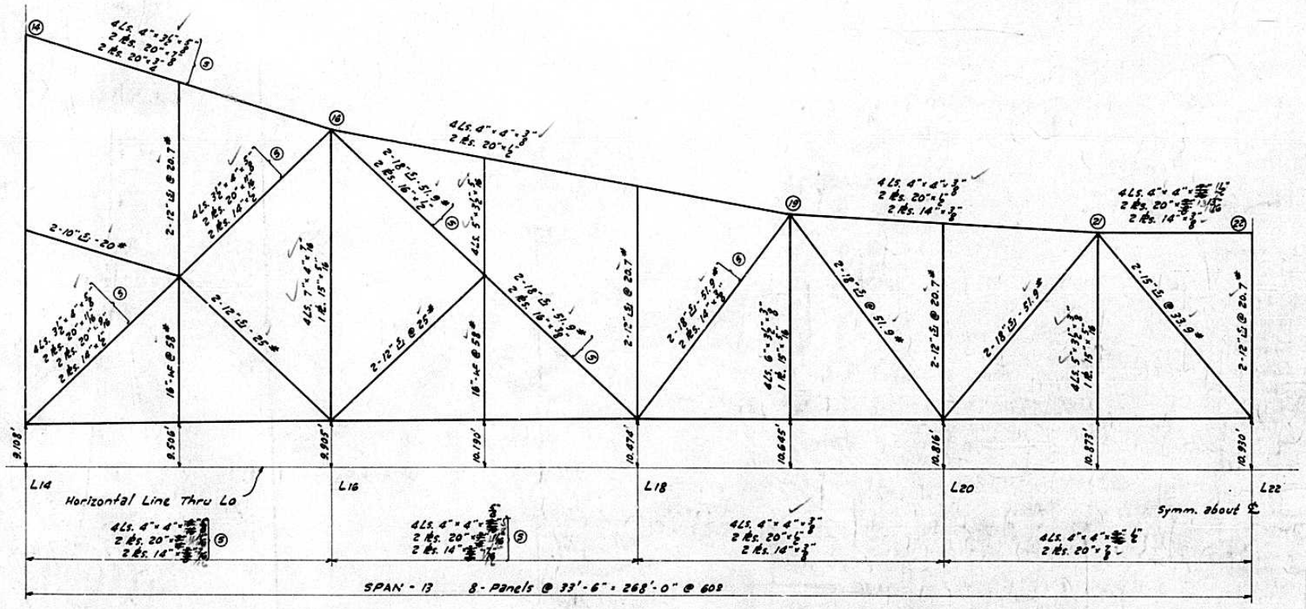
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F. A. RTE. 172 - SEC. 15-E-F-P-D-A
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	67
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 36
63 SHEETS SEC. 15E
70 - SEC. 15DF PL





MOMENTS & SHEARS FOR FLOOR BEAMS & STRINGERS

MEMBER	MOMENT (Ft. KIPS) D	MOMENT (Ft. KIPS) LL+I	MOMENT (Ft. KIPS) TOTAL	REACTION (KIPS) D	REACTION (KIPS) LL+I	REACTION (KIPS) TOTAL	SECTION
Curb Stringer	116	211 *	327	13.9	27.5	41.4	24"WF@74# ⑤
Interior Stringer	95	259	354	11.4	37.3	48.7	24"WF@80# ⑤
End Floor Beam	282	567	849	36.1	59.1	95.2	36"WF@160# ③
Interior Floor Beam	509.7	547	1056.7	64.9	57.4	122.3	36"WF@160# ⑤
End Floor Beam (Jacking Steel only)	620		620.	236.		236.	" " "

* Assumes outer truck wheel on Top of Sidewalk over Curb Stringer

BILL OF MATERIAL — SPANS - 12-13-14

ITEM	AMOUNT	SECTION
Structural Steel (carbon) Lbs.	2,000,000	15-E-F-P
" " (silicon) Lbs.	2,450,000	

STANDARD	COMPUTED F.H.Co.	A.P. Thomas
	CHECKED R.B. Murphy	
	DRAWN A.L.I.	J. Malecki
	CHECKED R.A.M.	
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
H.T. Burns BRIDGE ENGINEER
PASSED H.D. Surman ENGINEER OF DESIGN
APPROVED Ernest Luchemann CHIEF HIGHWAY ENGINEER
APPROVED 2-15-66
W.W. Polk CHIEF HIGHWAY ENGINEER

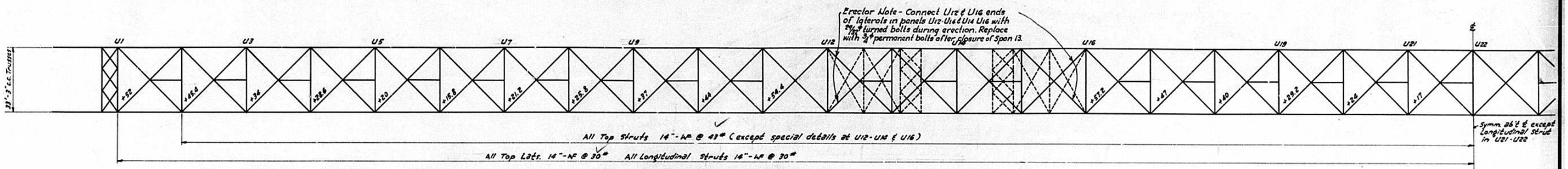
Rev. 2-7-66 R.B.M. ALT.

SPANS 12-13-14
FRAMING SHEET No. 1
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. ROUTE 172 SEC. 15 E-F-
PEORIA-TAZEWELL COUNTIES

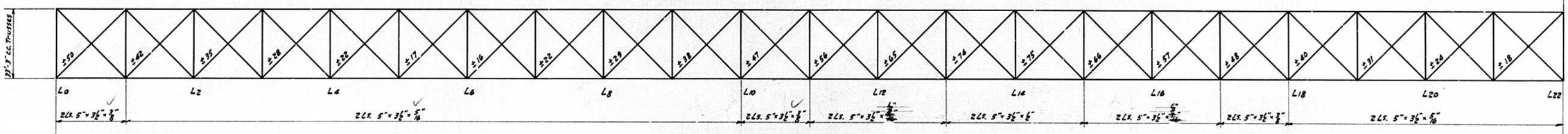
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E P	Peoria, Tazewell	94	68
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 600A		

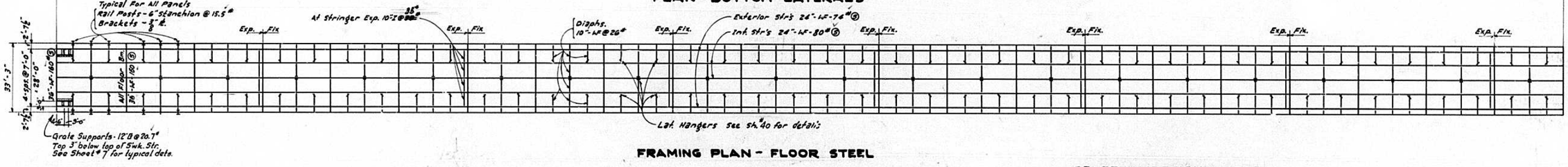
SHEET NO. 37.
63 SHEETS SEC. 15-E
70 " SEC. 15-D-E



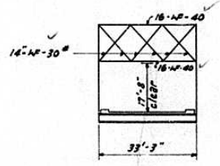
PLAN - TOP LATERALS



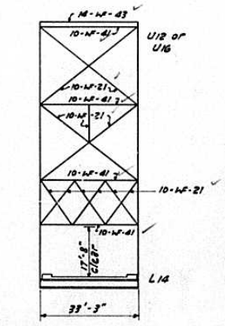
PLAN - BOTTOM LATERALS



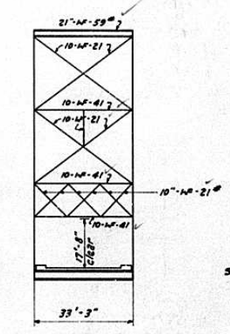
FRAMING PLAN - FLOOR STEEL



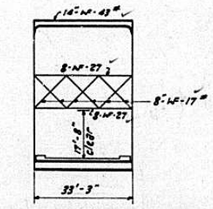
PORTAL AT L0-U1



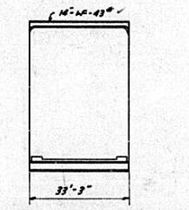
PORTAL AT U12-L14 & L14-U16



SWAY FRAME AT U14-L14



SWAY FRAMES AT U3-U5-U7
U9-U11-U17-U19 & U21



STRUT AT U2-U4-U6-U8
U10-U13-U15-U18-U20 & U22

GENERAL DESIGN NOTES

LOADING - I 20

Uniform Live Panel Load	26 kips
Concentr. Live Load for Moment	22 kips
" " " " Shear	32 kips
Impact	10 %

NOTATION

D = Dead Load Stress
L = Live Load Stress
I = Impact Stress
W1 = Stress for 30# Wind on 2 Trusses
2 Railings, 1 Curb + 1 Stringer to be combined with D.L.
W2 = Stress for 300#/lin. ft. on Lower Chord
150#/lin. ft. on Top Chord. to be combined with D.L. + L.L. + I.
M = Moment due to either of the above wind loads.

STRESS COMBINATIONS
All members are designed for the following stress combinations: D+L+I, D+W1 or D+L+I+W2. Allowable stresses are increased 25% for members governed by combination including wind stress.

ALLOWABLE UNIT STRESSES: LBS. PER SQ. IN.

	CARBON	SILICON
Axial Tension (net section)	18000	24000
Axial Compression	$15000-.25\left(\frac{\ell}{r}\right)^2$	$20000-.40\left(\frac{\ell}{r}\right)^2$
Shear: Pins, power driven rivets and turned bolts in reamed holes	13500	
Bearing: Pins, steel parts in contact & power driven rivets; Open Bearing	24000	
Closed Bearing	30000	
Turned bolts in reamed holes: Open Bearing	20000	
Closed Bearing	24000	
Bearing on Rocker Pins: For Total Load	15000	
For Dead Load Only	10000	
Flexure: Tension Flanges of Beams & Girders	18000	24000
Compression Flanges	$18000-5\left(\frac{\ell}{b}\right)^2$	$24000-6.67\left(\frac{\ell}{b}\right)^2$
Bearing Per Lineal Inch Rollers - 10" dia. & under, Rolled or Forged Steel	800 d	
Rockers - 10" dia. to 25" dia. " " " "	$8000+\frac{400}{3}(d-10)$	
Rockers - over 25" dia. Cast Steel - Annealed	$2800\sqrt{d}$	

FABRICATION NOTES

Material: All steel marked ⑤ shall be structural silicon steel conforming to A.S.T.M. designation A 94-39. Where copper bearing steel is called for it shall conform to A.S.T.M. designation A 7-39, .2% copper. All other steel shall be structural carbon steel, conforming to A.S.T.M. designation A7-39. Cast steel shall conform to A.S.T.M. designation A 27 Grade B-1, fully annealed.

Rivets: ¾"ø except as noted; ⅞"ø in flanges of channels 12" or smaller, and in angle legs of 3" or less.

Punching & Reaming: Holes to be punched 1/16" for ¾"ø rivets and 1/16" for ⅞" rivets, except as noted and as follows. All main truss connections both shop and field shall be sub punched in shop 1/16"ø and reamed 1/16"ø in shop, or drilled from the solid with members assembled, except that in closing panel the reaming or drilling shall be done in field as specified on plans. In building up main truss members, carbon steel ½" thick or over and silicon steel ⅜" or over shall be sub punched & reamed or drilled from the solid. Floor beam connections shall be reamed or drilled to a hardened steel template 1" thick. Holes in laterals, sway bracing, portals and other secondary members may be punched full size unless otherwise noted. For pitch of rivets at end of compression members see Art. 21.14 of the standard Specs. In tension members, rivets shall be staggered and spaced so as to maintain full net section as called for on sheet No. 39.

Inspection: by the Illinois Division of Highways before painting.

Paint: The Contractor for Sec. 15-E shall furnish and apply one shop coat of red lead paint in accordance with the Spec's., except that the top flange of all floor beams shall be painted. The Contractor for Sec. 15-E shall furnish & apply red lead paint for spot painting.

STANDARD	COMPUTED	F.A.Cay A.R.Thomas
	CHECKED	R.A.Murphy
	DRAWN	A.R.T. J.Malecki
	CHECKED	R.A.M.
SPECIAL	ASSEMBLED	
	CHECKED	

Rev. 2-7-46 A.L.T.

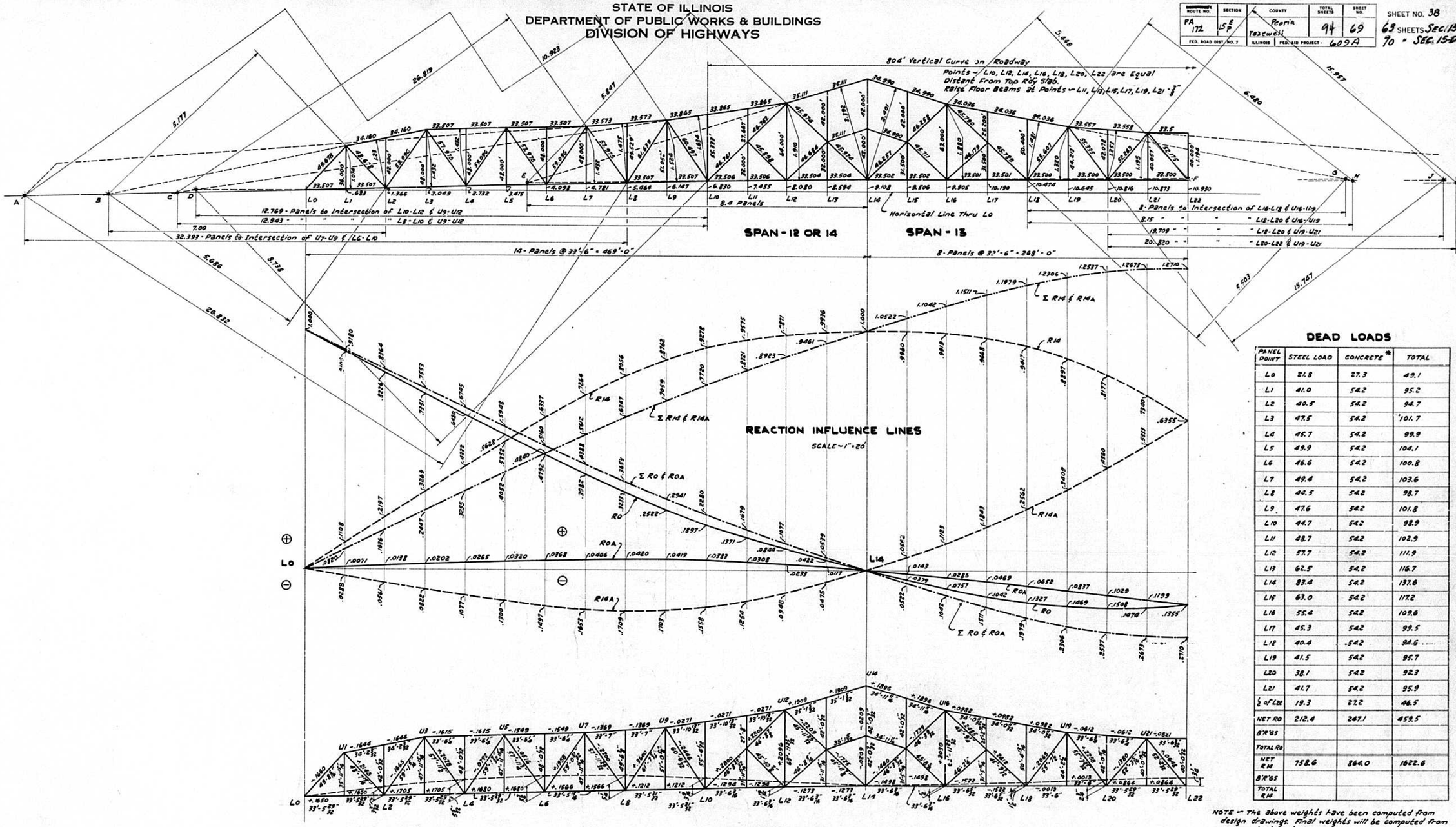
EXAMINED 5-5- 1941
A. T. Sumner BRIDGE ENGINEER
PASSED H. Turman ENGINEER OF DESIGN
APPROVED Frank T. Sievers CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46
W. W. Bolt CHIEF HIGHWAY ENGINEER

SPANS 12-13-14
FRAMING SHEET No. 2
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. ROUTE 172 SEC. 15-E-F-1
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15E	Peoria	94	69
		Tazewell		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 38
63 SHEETS SEC. 15E
70 " SEC. 15-E-F-RL



DEAD LOADS

PANEL POINT	STEEL LOAD	CONCRETE *	TOTAL
L0	21.8	27.3	49.1
L1	41.0	54.2	95.2
L2	40.5	54.2	94.7
L3	47.5	54.2	101.7
L4	45.7	54.2	99.9
L5	49.9	54.2	104.1
L6	46.6	54.2	100.8
L7	49.4	54.2	103.6
L8	44.5	54.2	98.7
L9	47.6	54.2	101.8
L10	44.7	54.2	98.9
L11	48.7	54.2	102.9
L12	57.7	54.2	111.9
L13	62.5	54.2	116.7
L14	83.4	54.2	137.6
L15	63.0	54.2	117.2
L16	55.4	54.2	109.6
L17	45.3	54.2	99.5
L18	40.4	54.2	94.6
L19	41.5	54.2	95.7
L20	38.1	54.2	92.3
L21	41.7	54.2	95.9
½ of L22	19.3	27.2	46.5
NET RO	212.4	247.1	459.5
8'K'85			
TOTAL RO			
NET RM	758.6	864.0	1622.6
8'K'85			
TOTAL RM			

NOTE - The above weights have been computed from design drawings. Final weights will be computed from approved shop drawings.
* Includes 45 #/ft./ truss for Public Utilities.

STANDARD	COMPUTED	F.A.Coy A.L. Thomas
	CHECKED	R.O.Murphy
	DRAWN	C.L.T. J. Melnick
	CHECKED	R.A.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
M. F. Curran
BRIDGE ENGINEER
PASSED H. C. Sherman
ENGINEER OF DESIGN
APPROVED Ernest J. Lieberman
STATE HIGHWAY ENGINEER
APPROVED 2-15-46 W. W. Bath
CHIEF HIGHWAY ENGINEER

SPANS 12-13-14
TRUSS LAYOUT - REACTION INFLUENCE LINES
FABRICATING LENGTHS - CAMBER - DEFORMATIONS
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. RTE. 172 SEC. 15-E-F-[illegible]
PEORIA - TAZEWELL COUNTIES

MEMBER	SECTION	MATERIAL S=SILICON C=CARBON	UNSUPPORTED LENGTH FT. C. to C.	X-X rx	Y-Y ry	1/r MAX.	AREA SQ. INCHES GROSS	AREA SQ. INCHES NET	STRESS KIPS DEAD LOAD D	STRESS KIPS LIVE LOAD L	STRESS KIPS IMPACT I	WIND STRESS W1 30# per Sq.Ft.	WIND STRESS W2 300# Ln. Ft. L.C. 150# " " U.C.	Σ STRESSES (Kips) D+L+I A	Σ STRESSES (Kips) D+W1 B	Σ STRESSES (Kips) D+L+I+W2 C	UNIT STRESS lbs/sq.in. A	UNIT STRESS lbs/sq.in. B	UNIT STRESS lbs/sq.in. C	ALLOWED UNIT STRESS A	ALLOWED UNIT STRESS B&C	DEAD LOAD DEFORMATIONS-CAMBER Effective Area-Sq.In. A'	DEAD LOAD DEFORMATIONS-CAMBER Deformation Ft. D×6/A'×E	DEAD LOAD DEFORMATIONS-CAMBER Actual Correction for Camber-Ft. (Fabr.-Nominal)	STRESS-STEEL WT. Continuous Lo to Lo Kips	STRESS-STEEL WT. Cantilever from Lm to Le & Lo to Lo Kips	MEMBER
Lo U1	4Ls 4"×4"×⅝ 2 Pl. 14"×⅜ & 2 Pl. 20"×⅜	S	X=49.677 Y=28.8	7.31 7.55		81.6	78.19 77.66	73.84 73.31	-633	-254	-25	±44 ±577 Ft. Kip	±30 ±693 Ft. Kip	-912	-677 ±577 Ft. Kip	-994 ±693 Ft. Kip	-12590 -18630	-19500	-19730 -19830	-17120 -18400	-21400 -21400	76.67 75.67	-.0130	+.0147	-693	-276	Lo U1
U1 U3	4Ls 4"×4"×⅝ 2 Pl. 20"×⅝ 2 Pl. 16"×⅜	S	34.160	7.60 7.86	6.84 6.89	59.4 58.4	38.78 38.78	32.76 32.76	-669	-259	-26			-954			-18180 -18450			-18400 -18370		56.23 56.23	-.0257 -.0257	+.0290	-312	-294	U1 U3
U3 U5	do	S	33.507	7.14 7.32	7.02 7.30	55.4 55.2	34.98 34.67	70.66	-880	-363	-36			-1279			-18660 -18860			-18550 -18600		73.83 73.83	-.0264	+.0278	-417	-367	U3 U5
U5 U7	do	S	33.507	7.10 7.30	7.27 7.23	56.6 56.2	36.69 34.76	75.66	-901	-420	-42			-1363			-18100 -19060			-18200 -18600		78.84 73.84	-.0258	+.0278	-435	-390	U5 U7
U7 U9	do	S	33.573	7.16 7.70	6.98 7.08	58.1 58.1	63.78 61.66	57.96	-616	-363	-56			-1041			-18040 -17970			-18400 -18420		61.23 60.24	-.0268	+.0208	-310	-250	U7 U9
U9 U12	4Ls 4"×4"×⅝ 2 Pl. 14"×⅝ 2 Pl. 20"×½	C	33.865	7.82	7.00	58.0	41.94	37.44 +28.14	-80	-257 +242	-25 +24			-363 +188			-9700 +8450			-14190 +18000		40.26	-.0067	+.0068	-63	+4	U9 U12
U12 U14	4Ls 3½"×3½"×½ 2 Pl. 20"×½ 2 Pl. 16"×½	S	35.110				82.20	64.20	+1118	+384	+38			+1540			+24000			+24000		82.20	+.0318	-.0292	+502	+566	U12 U14
U14 U16	do do	S	34.990				82.20	64.20	+1113	+383	+38			+1534			+23900			+24000		82.20	+.0318	-.0320	+500	+564	U14 U16
U16 U19	4Ls 4"×4"×½ 2 Pl. 20"×½	C	34.036				31.44	24.44	+227	+178 -123	+17 -12			+418 +98			+17000			+18000		31.44	+.0246	-.0222	+113	+216	U16 U19
U19 U21	4Ls 4"×4"×⅝ 2 Pl. 16"×½ 2 Pl. 20"×½	C	32.558	7.82	7.00	57.5	41.94	37.44	-183	-251 +183	-23 +19			-459 +80			-12600			-14150		40.26	-.0108	+.0100	-58	+64	U19 U21
U21 U22	4Ls 4"×4"×⅝ 2 Pl. 16"×½ 2 Pl. 20"×⅜	C	33.500	7.55 7.64	7.00 6.96	57.4 57.4	58.94 58.00	53.50 53.00	-350	-311 +248	-31 +20			-698 -110			-18950 -17940			-14150 -14110		56.32 54.00	-.0089	+.0076	-126	0	U21 U22
Lo L2	4Ls 4"×4"×⅜ 2 Pl. 20"×⅜	S	33.507				35.00 34.88	27.00 26.88	+429	+163	+16	±130	±100	+608	+539	+708	+28680 +22510	+29300 +20700	+26488	+24000	+30000	35.00 34.88	+.0272	-.0246	+196	+189	Lo L2
L2 L4	4Ls 4"×4"×⅜ 2 Pl. 20"×⅜	S	33.507				60.00 59.88	47.00 46.88	+763	+304	+30	±222	±174	+1097	+965	+1271	+29160 +23380	+29600 +20950	+27080	+24000	+30000	60.00 59.88	+.0284	-.0296	+339	+336	L2 L4
L4 L6	4Ls 4"×3½"×½ 4Ls 3½"×3½"×½	S	33.507				74.00	58.00	+928	+402	+40	±263	±207	+1370	+1191	+1577	+23600	+20300	+27200	+24000	+30000	74.00	+.0230	-.0298	+444	+406	L4 L6
L6 L8	do 2 Pl. 20"×⅜ 2 Pl. 20"×½	S	33.507				69.00	54.00	+803	+418	+41	±254	±199	+1265	+1059	+1464	+23420	+19600	+27100	+24000	+30000	69.00	+.0261	-.0244	+394	+341	L6 L8
L8 L10	do 2 Pl. 20"×⅝	S	33.507				41.50	32.00	+376	+333 -294	+33 -28	±195	±152	+742 +119	+571	+874 -33	+23200	+17900	+27900	+24000	+30000	41.50	+.0202	-.0195	+199	+133	L8 L10
L10 L12	4Ls 4"×4"×⅝ 2 Pl. 16"×½ 2 Pl. 20"×⅝	S	33.505	7.64	6.97	57.7	53.00	48.50	-497	-271	-27	±146	±111	-795	-544	-907	-16410	-13500	-18700	-18400	-23000	51.32	-.0216	+.0212	-202	-271	L10 L12
L12 L14	do do	S	33.505	7.64	6.97	57.7	53.00	48.50	-489	-271	-27	±266	±206	-787	-757	-993	-16230	-13600	-20300	-18400	-23000	51.32	-.0213	+.0232	-195	-264	L12 L14
L14 L16	4Ls 4"×4"×⅝ 2 Pl. 16"×⅜ 2 Pl. 20"×⅜	S	33.502	7.60 7.86	6.84 6.89	57.8 58.4	47.02 38.19	32.20 32.20	-622	-263	-26	±266	±211	-915	-890	-1184	-17330 -17600	-16900 810	-21800 220	-18400 30	-23000 040	56.23 58.24	-.0227	+.0272	-272	-353	L14 L16
L16 L18	do do	S	33.502	7.60 7.86	6.84 6.89	57.8 58.4	47.02 38.19	32.20 32.20	-631	-265	-26	±120	±96	-922	-751	-1018	-17600 -17600 410	-14300 -14300 180	-19300 -19300 220	-18400 -18400 30	-23000 -23000 040	56.23 58.24	-.0259	+.0240	-281	-363	L16 L18
L18 L20	4Ls 4"×4"×⅜ 2 Pl. 16"×½ 2 Pl. 20"×⅜	C	33.500	7.82	7.00	57.5	41.94	+28.14 -37.44	-4	+186 -166	+19 -17	±223	±124	+208 -187	+219 -227	+326 -312	+6980 -3020	+7580 -6060	+11300 -8330 +1020	+18000 -14130	+22500 -17700	40.26	-.0008	0	-20	-136	L18 L20
L20 L22	4Ls 4"×4"×⅝ 2 Pl. 20"×⅜	C	33.500				46.04 50.00	34.74 39.00	+311	+279 -183	+30 -18	±261	±203	+640 +110	+572	+845 -72	+16900 410	+13130 +14660	+2130 -2130	+18000	+22500	46.04 50.00	+.0144 +.0139	-.0156	.0112	-16	L20 L22
U1 L2	2-18" DSJ-51.9	C	48.678				30.36	27.86	+333	+152	+15			+500			+17950			+18000		30.36	+.0178	-.0165	+157	+147	U1 L2
L2 U3	2-18" DSJ-45.8 Laced	C	59.096	6.55	7.14	108	26.76		-187	-118	-12			-317			-11830			-12100		26.76	-.0286	+.0134	-94	-84	L2 U3
U3 L4	2-15" DSJ-40	C	57.975				23.40	20.90	+203	+134	+13			+350			+16750			+18000		23.40	+.0188	-.0167	+101	+88	U3 L4
L4 U5	2-18" DSJ-42.7 Laced	C	59.096	6.64	7.15	107	24.96		-83	-113	-11			-207			-8300			-12100		24.96	-.0066	+.0036	-46	-33	L4 U5
U5 L6	2-15" DSJ-33.9 Laced	C	57.975	5.62*	7.20	123.5	19.80	15.70	-94	+90 -102	+9 -10			+35 -136			+3500 -7880			+18000 -11200		19.80	-.0043	+.0042	-15	-26	U5 L6
L6 U7	2-15" DSJ-33 40#	C	59.096				20.46 23.40	17.76 20.9	+169	-73 +125	+12			+506			+7040 +14650			+18000		20.46 23.4	+.0163 +.0142	-.0153	+72	+86	L6 U7
U7 L8	2-18" DSJ-58 Laced	S	57.975	6.29	7.14	110.6	33.96		-385	+42 -144	-14			-483			-14200			-14350		33.96	-.0185	+.0172	-147	-156	U7 L8
L8 U9	2-18" DSJ-51.9	S	61.639				30.36	26.76	+444	-32 +171	+17			+682			+23600			+24000		30.36	+.0300	-.0296	+201	+211	L8 U9
U9 L10	4Ls 3½"×4"×½ 2 Pl. 16"×½ 2 Pl. 20"×⅝	S	60.497	7.57	6.92	105	54.5	50.0	-335	-177	-18			-730			-14600			-14900		55.82	-.0204	+.0212	-248	-250	U9 L10
L10 M11	2-18" DSJ-58 2 Pl. 16"×⅝	S	46.761				53.96	46.16	+815	+559	+26			+1090			+23350			+24000		53.96	+.0253	-.0240	+370	+374	L10 M11
M11 U12	2-18" DSJ-58 2 Pl. 16"×⅝	S	46.762				57.96	49.66	+878	+578	+28			+1184			+23630			+24000		57.96	+.0258	-.0224	+404	+409	M11 U12
U12 M13	4Ls 3½"×4"×⅝ 2 Pl. 20"×⅝ 2 Pl. 14"×½	S	X=45.974 Y=22.75	7.80	6.80	70.7	61.2	53.2	-706	-249	-25			-982			-17400			-17700		58.98	-.0184	+.0182	-344	-334	U12 M13
M13 L14	4Ls 3½"×4"×½ 2 Pl. 16"×½ 2 Pl. 20"×⅝	S	X=45.934 Y=30.08	7.23	7.88	78.3	86.2	80.2	-798	-278	-27	±122 ±416 Ft.K.	±73 ±250 Ft.K.	-1091	-914 +618 Ft.K.	-1184 -850 Ft.K.	-13600	-21400	-20300	-17300	-21800	83.96	-.0144	+.0156	-388	-379	M13 L14
L14 M15	4Ls 3½"×4"×½ 2 Pl. 16"×½ 2 Pl. 20"×⅝	S	X=46.257 Y=30.73	7.32	7.26	75.6	84.2	79.2	-614	-255	-24	±122 ±422 Ft.K.	±79 ±270 Ft.K.	-873	-739 -688 Ft.K.	-958 -870 Ft.K.	-11600	-20770	-19800	-17330	-21700	78.96	-.0120	+.0118	-286	-256	L14 M15
M15 U16	do 2 Pl. 20"×⅞	S	X=46.258 Y=22.75	7.88	6.80	70.4	58.7	58.7	-526	-211	-21			-760			-14440			-17700		56.46	-.0144	+.0134	-240	-212	M13 U16
U16 M17	2-18" DSJ-51.9 2 Pl. 16"×½	S	46.790				46.36	39.46	+629	✓+259	+26			+916			+23200			+24000		46.36	+.0207	-.0182	+266	+238	U16 M17
M17 L18	2-18" DSJ-51.9 2 Pl. 16"×½	S	46.789				42.36	35.96	+337	+242	+24			+883			+22900			+24000		42.36	+.0201	-.0206	+233	+205	M17 L18
L18 U19	2-18" DSJ-51.9 2 Pl. 14"×½	S	55.607	6.92	6.86	97.2	40.86	36.36	-364	-172	-17			-553			-13200			-15660		39.18	-.0172	+.0180	-151	-126	L18 U19
U19 L20	2-18" DSJ-51.9	C	55.335				30.36	27.86	+310	+173	+17			+500			+17950			+18000		30.36	+.0188	-.0199	+129	+119	U19 L20
L20 U21	2-18" DSJ-51.9 Laced	C	52.263	6.40	7.15	98.0	30.36		-200	-149	-15			-365			-12020			-12600		30.36	-.0115	+.0130	-84	-75	L20 U21
U21 L22	2-15" DSJ-33.9 Laced	C	52.175	5.62		111.4	19.80	15.70	+62	+183 -104	+13 -11			+200 -58			+17800 -11900			+18000 -11900		19.80	+.0054	-.0057	+25	+25	U21 L22
M11 L12; L12 M13	2-12" DSJ-25 Laced	C	Max. 46.684	4.43		126	14.64		-72 -55	-42	-11			-138			-9400			-11000		14.64	-.0073 -.0090	+.0068 +.0087	-55 -46		M11 L12 L12 M13
M13 M14; M14 M15	2-10" DSJ-20 Laced	C	Max. 35.111	3.66		113	11.72		+100	+34	+17			Erection Stress +151								11.72	0	-.0146 -.0160	0	+151 (Erection)	M13 M14 M14 M15
U14 L16	4Ls 3½"×4"×⅝ 2 Pl. 16"×½ 2 Pl. 20"×⅝	S	X=42.00 Y=20.60	7.25	6.86	65.6	57.7	53.2	-700	-225	-23	±41 ±80Ft.K.	±37 ±71Ft.K.	-948	-741 -603Ft.K.	-985 -718Ft.K.	-17830	-16980	-21210	-18000	-22500	56.02	-.0330	+.0365	-339	-377	U14 L14
M15 L16; L16 M17	2-12" DSJ-25 Laced	C	Max. 46.179	4.43		125	14.64		-85 -73	-42	-11			-138			-9400			-11100		14.64	-.0069 -.0077	+.0078 +.0085	-46 -33		M15 L16 L16 M17
U1 L1; M11 L11; M13 L13	16"-WF-58	C	Max. 36.00		1.88	230	17.04	14.46	+61	+43	+12			+123			+8300			+18000		17.04	+.003781 +.003918 18.13 +.003915 15.17	-.0052	+25 Max.		U1 L1 M11 L11 M13 L13 M15 L15 M17 L17
U3 L3; U5 L5; U7 L7 U9 L9; U11 L11	4 L 6"×3½"×⅝ ~ 12.15"×⅜	C	Max. 51.058	2.52		243	18.37	14.73	+81	+43	+12			+123			+8360			+18000		18.37	+.0073 Max. +.0068 Min.	-.0052	+28 Max.		Vert. Hanger L3-9-7-9-11
U21 L21	4 L 5"×3½"×⅜ 12.15"×⅜	C	40.00	2.03		236	16.89	13.27	+81	+43	+12			+123			+9260			+18000		16.89	+.0064	-.0078	+24		U21 L21
U12 L12; U16 L16	4 L 7"×4"×⅞ 12.15"×⅜	C	Max. 64.00	2.03		250	23.21	17.33	+189	+84	+16			+289			+16,700			+18000		23.21	+.0174 +.0171	-.0182	+83		U12 L12 U16 L16
U2 L2; U4 L4; U6 L6; U8 L8; U10 L10; U13 M13; U15 M15 U18 L18; U20 L20; U22 L22	2-12" DSJ-20.7 Laced	C	Max. 55.393	4.61	7.66	144	12.06		-18					-18			-1490			-9800		12.06	-.0023 Max. -.0013 Min.	+.0026	-18		Vert. strut @ U2-4-6-8-10-13-15-18-20-22
M11 U11; M17 U17	4 L 5"×3½"×⅝ Laced	C	Max. 27.667	2.54		131	10.24		-12					-12			-1178			-8600		10.24	-.0008 -.0009		-12		M11 U11 M17 U17

Rev. 2-7-46 RBM-ELT

SHEET NO. 39
63 SHEETS
TO SEC. 15-E-F

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	70
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	409A	

COMPUTED F.A.Coy G. L. Thomas.
CHECKED E.B.Murphy
DRAWN F.A.C. A.L.T. J. Malecki
CHECKED R.B.M.

EXAMINED 5-5-1941
H. T. Burnett BRIDGE ENGINEER
PASSED H.E.Surman ENGINEER OF DESIGN
APPROVED Ernest Lieberman STATE HIGHWAY ENGINEER
APPROVED 2-15-46 W. W. Polk CHIEF HIGHWAY ENGINEER

SPANS 12-13 & 14
STRESS & DESIGN DATA
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. RTE. 172 SEC. 15-E-F
PEORIA-TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	71
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 40.
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F-P.L

TYPICAL DET. OF HAND HOLES IN COVER Pls.

STANDARD	COMPUTED	F.A.Coy
	CHECKED	
	DRAWN	
	CHECKED	
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46
CHIEF HIGHWAY ENGINEER

Rec 2-7-46 A.T.
Rec 2-7-46

Rivets - 7/8" unless noted.
See Sheet #37 for Gen. Notes.

SPANS 12-13-14
TRUSS DETAILS L0-L3
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 - SECTION 15 E-F-[illegible]
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	71
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 40.
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F-P.L

TYPICAL DET. OF HAND HOLES IN COVER Pls.

STANDARD	COMPUTED	F.A.Coy
	CHECKED	
	DRAWN	
	CHECKED	
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46
CHIEF HIGHWAY ENGINEER

Rec 2-7-46 A.T.
Rec 2-7-46

Rivets - 7/8" unless noted.
See Sheet #37 for Gen. Notes.

SPANS 12-13-14
TRUSS DETAILS L0-L3
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 - SECTION 15 E-F-[illegible]
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15E	Peoria Tazewell	94	72
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	699A	

SHEET NO. 41
63 SHEETS SEC. 15-E
70 " SEC. 15-DF-RL

U4 | U5 | U6 | U7 | U8

SEE DETAIL AT U4

All Top Lats. 14"-LR-30#. For Typical & Splice Details, See Sh. #40
Cross Struts 14"-LR-43#
Longitudinal Struts 14"-LR-30#
See Det's on Sht. No. 46

Cut ends of Top Lats thus at U3-5-7-9-12 14-16-19 & 21

DETAIL - ENDS OF TOP STRUTS AT U3-7-9-19 & 21 Mill Joint

At U3-U5-U9-U11 strip one Flg. & Grind Flush. Weld L 3½"×3½"×⅜"×1'-9" in place of Flg. Bend Horiz. leg up or down as Req'd

U3-U5
4 Lds. d'-d'-3⅜"-5⅝"
2 Pcs. 20'-3⅜"
2 Pcs. 14'-3⅜"

U5-U7
4 Lds. d'-d'-3⅜"-5⅝"
2 Pcs. 20'-3⅜"
2 Pcs. 20'-3⅜"
2 Pcs. 14'-3⅜"

U7-U9
4 Lds. d'-d'-3⅜"-5⅝"
2 Pcs. 20'-3⅜"
2 Pcs. 14'-3⅜"

L2-L4
4 Lds. d'-3⅜"-5⅝"
2 Pcs. 20'-3⅜"
2 Pcs. 20'-3⅜"

L4-L6
4 Lds. d'-3⅜"-5⅝"
4 Pcs. 20'-3⅜"

L6-L8
4 Lds. d'-3⅜"-5⅝"
2 Pcs. 20'-3⅜"
2 Pcs. 20'-3⅜"

L8-L10
4 Lds. d'-3⅜"-5⅝"
2 Pcs. 20'-3⅜"

U3-L4 | U4-L4 | U4-L5 | U5-L5 | U5-L6 | U6-L6 | U6-L7 | U7-L7 | U7-L8 | U8-L8 | U8-L9

L2 | L4 | L5 | L6 | L7 | L8

All Lower Lats. L4 to L8 - 2 Lds 5"-3⅜"-5⅝" For Typical Splices & Det's of Lateral Hangers - See Sh. # 40

See Sh. #40 for 5¾" Bolt circle for Navy Light F.S.

STANDARD	COMPUTED	F.A.Coy A.R.Thomas
	CHECKED	R.B.Murphy
	DRAWN	A.R.T. J. Melecki
	CHECKED	E.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
A. T. Burdick BRIDGE ENGINEER
PASSED H. E. Sarman ENGINEER OF DESIGN
APPROVED Ernest J. Siekerman DIRECTOR OF PUBLIC WORKS & BUILDINGS
APPROVED 5-15-41
W. W. Pohl CHIEF HIGHWAY ENGINEER

Rev 2-7-46 ARJ

Rivets ⅞" unless noted.
See Sheet 97 for Gen. Notes.

SPANS - 12-13-14
TRUSS DETAILS - L4 TO L8
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. ROUTE 172 SEC. 15-E, F, RL
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E F	Peoria Tazewell	94	73
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	669A	

SHEET NO. 42
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F-P-L

STANDARD	COMPUTED	F.A.Coy
	CHECKED	R.C.Murphy
	DRAWN	F.A.C. HENRY D. TEPPE
	CHECKED	R.M.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
BRIDGE ENGINEER
PASSED H.E. Sturman
ENGINEER OF DESIGN
APPROVED Ernst Tiefenman
CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46 W.W. Pash
CHIEF HIGHWAY ENGINEER

Rev. 2-7-46 HRP

SPANS 12-13-14
TRUSS DETAILS L9-L12
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F. A. RTE. 172- SECT. 15-E-F-[illegible]
PEORIA-TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 E P	Peoria Tazewell	94	74
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 609A		

SHEET NO. 43
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F P.L

U13 U14 U15 U16 M13 M14 M15 L13 L14 L15 L16

Top Lat. ℄ 7/8"
Int. stays - 13-⅝"x⅜"x 9" @ 3'-6" c/c. Max.
End stays - 13-⅝"x⅜"x 1'-6"
Diaph. 'C'
2-⅝" Fills
Max. Spa. 9"
16'-0.0 ⅞ Rets.
Close Joint
End stay - 13-⅝"x⅜"x 1'-6" do x 9" @ 3'-6" c/c. Max.
Top Flg. Det's similar to U13
Bend Line
Strut & Bracing conn. on U16 portal top flange
28-⅞" T.B. during erection only. Replace with ⅞" ϕ bolts and spring washers.
End stays 13-⅝"x⅜"x 1'-6" Int. @ 3'-6" c/c Max.
Top Lat. ℄ 7/8"
Close Joint
Diaph. 'D'
Diaph. 'A'
Diaph. 'G'
Diaph. 14" WF-22.8#
Shop Splice Added Conn. #2
Shop Spliced
Splice Joint
Note "A" - Ream to 25/32" ϕ for ⅞" ϕ Turned Bolts for Erection. After slab has been poured & with no stress in M13-M14-M15 Ream 1⅛" ϕ for 1" ϕ T.B.
M14-M15 2-10-45 @ 20" Det's same as for M13-M14
End Cover ℄s.
Provide Shipping Diaphs. 1'-3" long
Provide Shipping Diaphs. 1'-8⅛" 16'-0.0
Drill for 1" ϕ T.B. while assembled as per Spec. Provisions
Lateral conn. bott. flange
Lateral & strut conn. bott. flange
Strut & bracing conn. on U16 portal bott. flange
Rivets - ⅞" ϕ unless noted. See Sht. #37 for Gen. Notes

SECTION THRU VERTICAL U14-L14
Before Joint L14 is milled, all shop rivets must be driven & both permanent and shipping diaphragms in place.

STANDARD	COMPUTED	F.A. Coy. A. L. Homer
	CHECKED	R.B. Murphy
	DRAWN	A.L.L. J. Malecki
	CHECKED	R.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941 H. F. Bundy BRIDGE ENGINEER
PASSED H. E. Sherman ENGINEER OF DESIGN
APPROVED Ernst Lieberman CHIEF HIGHWAY ENGINEER
APPROVED 2-15-46 W. W. Toth CHIEF HIGHWAY ENGINEER

Provide 7"-⅛" Fills for L12 L14
" 7"-3/16" " L14 L16
Ship Diaphs 'G' in place with joint L14 ERECTOR remove & put Diaphs 'G' inside chord sections before erecting.

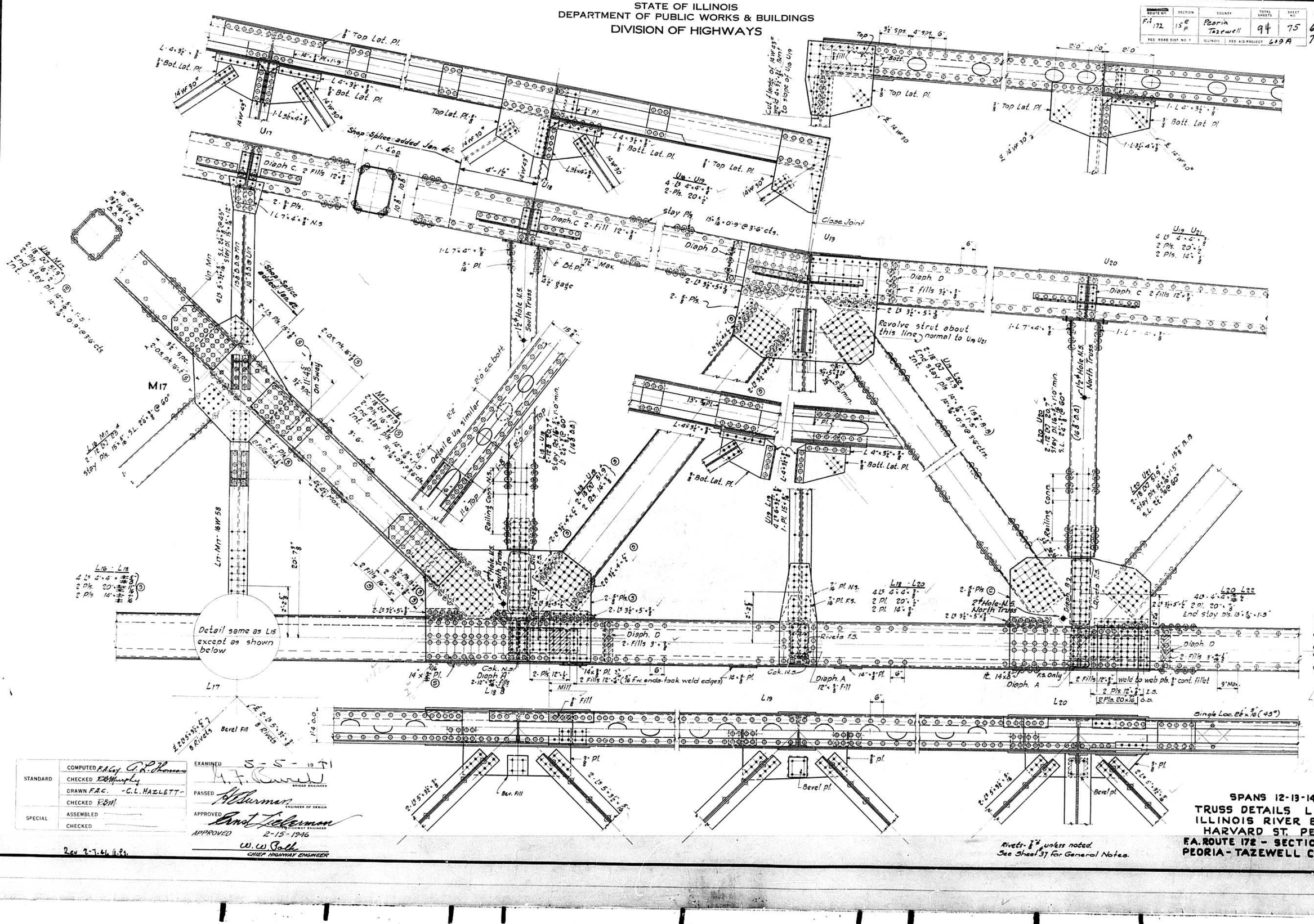
Rev. 2-1-46 (R.)

SPANS - 12-13-14
TRUSS DETAILS L13 TO L16
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. ROUTE-172 SEC. 15-E-F
PEORIA - TAZEWELL COUNTY

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15 E P	Peoria Tazewell	94	75
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 609 A		

SHEET NO. 44
63 SHEETS SEC. 15-E
70 " SEC. 15-D F.A.P. L



STANDARD	COMPUTED	F.A.Gy. A.P. Thomas
	CHECKED	E.A. Murphy
	DRAWN	F.A.C. -C.L. HAZLETT-
	CHECKED	E.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
M. T. Burnett BRIDGE ENGINEER
PASSED H. E. Burman ENGINEER OF DESIGN
APPROVED Ernest Lieberman HIGHWAY ENGINEER
APPROVED 2-15-1946
W. W. Bolt CHIEF HIGHWAY ENGINEER

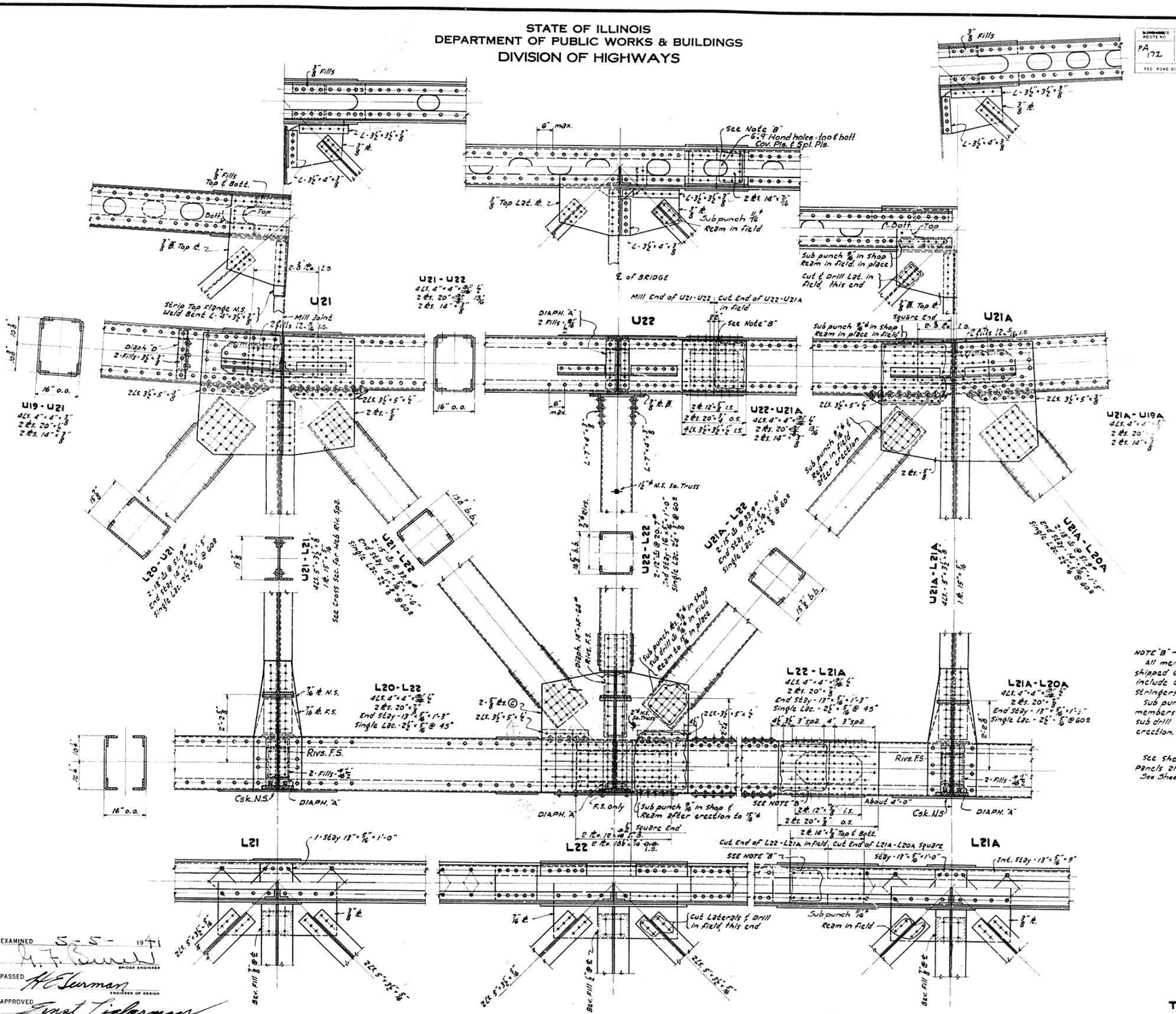
Rev 2-7-46 A.P.T.

Rivets - 7/8" unless noted.
See Sheet 37 for General Notes.

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

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FA 172	15 E F	Peoria Tazewell	94	76
FED. ROAD DIST NO. 7	ILLINOIS	FED. AID PROJECT	609A	

SHEET NO. 45
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F P.L.



NOTE "B" — Rivets - ⅞" ϕ unless noted.
All members in closing Panel 22-21A shall be shipped 6" longer than computed length. This shall include chords, Diagonals, Top & Bottom Laterals, Stringers & Railings.
Sub punch Gusset & Splice Pls in shop ⅝" ϕ. cut members to exact measured length in field, sub drill ⅞" ϕ to template & ream to 15/16" ϕ after erection.

See Sheet #48 for Ladder & Lighting Details in Panels 21-22 North Truss & 22-21A South Truss. See Sheet #37 for General Notes.

STANDARD	COMPUTED F.A.Coy.	A.L.L. Thomas
	CHECKED D.B. Murphy	
	DRAWN A.L.L.	J. Mahrle
	CHECKED E.B.M.	
SPECIAL	ASSEMBLED	—
	CHECKED	—

EXAMINED 5-5- 1941
H.F. Burnett BRIDGE ENGINEER
PASSED H.E. Burman ENGINEER OF DESIGN
APPROVED Ernest Lieberman ENGINEER
APPROVED 2-15-1946
W.W. Bach CHIEF HIGHWAY ENGINEER

Rev. 2-7-46 ALT.

SPANS ~ 12-13-14
TRUSS DETAILS L21 TO L21A
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. ROUTE 172 SEC. 15-E,F,&E.
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FA 172	15 D & F	Peoria	44	19
		Tazewell	94	77
FED. ROAD DIST NO 7	ILLINOIS	FED. AID PROJECT 609A		

SHEET NO 46
63 SHEETS SEC 15-E
70 " SEC 15-F PL

DETAIL TYPICAL FOR U2 - U4 - U6 - U8 - U10 - U12 - U14 - U18 - U20 & U22 U11 & U17 - Similar

DETAIL TYPICAL FOR U3 - U5 - U7 - U9 - U19 & U21

PLAN OF TOP CHORD BRACING

PLAN OF SWAY STRUT

Sway Struts @ Panel Points 3-5-7-9-11-17-19 & 21

For details of slab reinforcement See Sheet # 62

Stringer Conn. at Expansion Joints in Floor Slab - L3-L6-L9-L12-L15-L18 & L21 As shown for curb Stringer - Intermediate Stringers similar.

TYPICAL INTERIOR STRINGER CONNECTIONS

STANDARD	COMPUTED	F.A.Coy A. L. Thomas	EXAMINED 5-5-1941 M. F. Curran BRIDGE ENGINEER
	CHECKED	T.C.Murphy	PASSED H. E. Surman ENGINEER OF DESIGN
	DRAWN	A.L.T. J. Malech	APPROVED Ernest Johnson STATE HIGHWAY ENGINEER
	CHECKED	R.B.M.	APPROVED 2-15-1946 W. W. Pack CHIEF HIGHWAY ENGINEER
SPECIAL	ASSEMBLED		
	CHECKED		

Rev. 2-7-46 RBM

Note: Rivets 7/8" unless noted. For General Notes, see Sheet 37

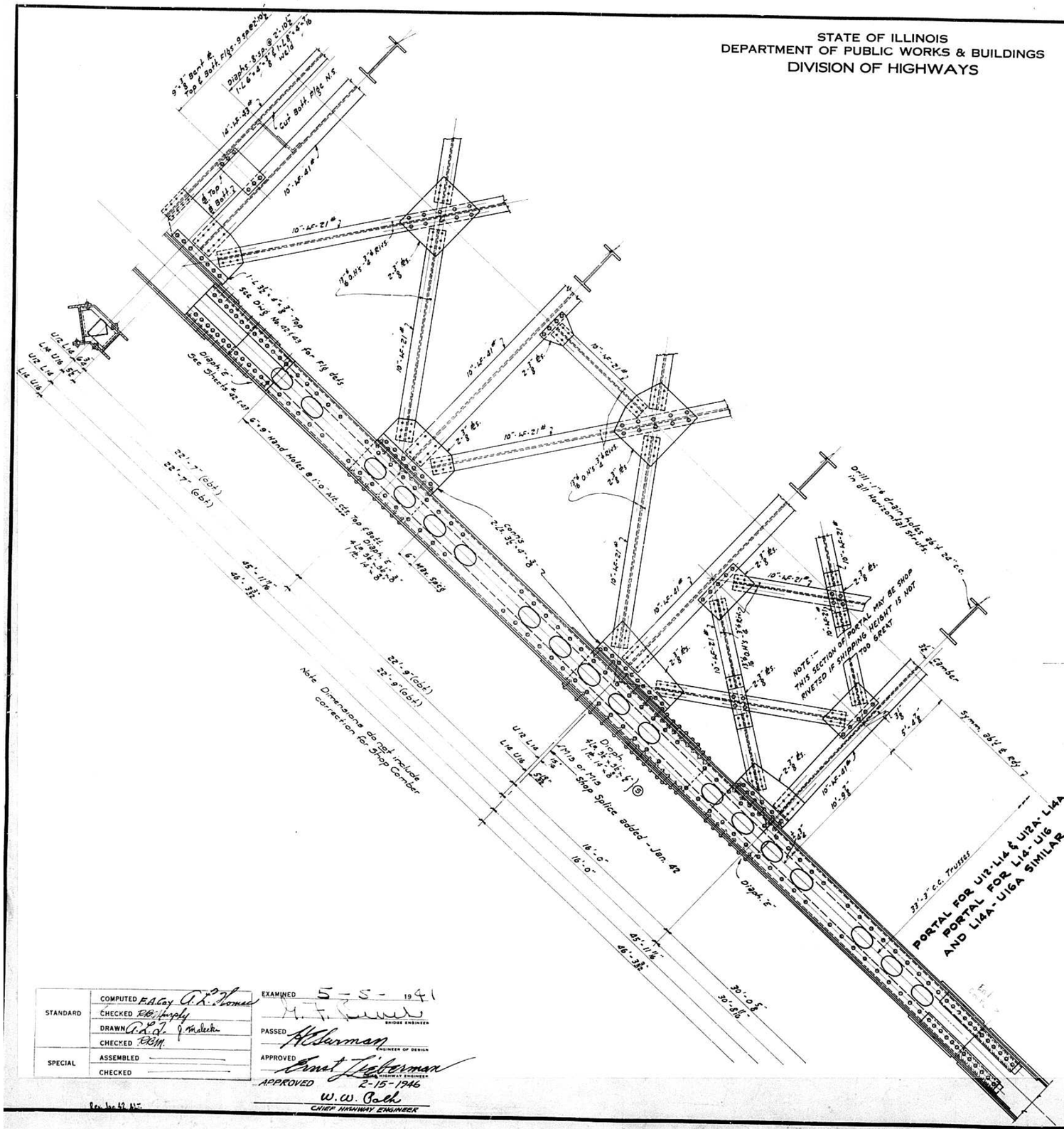
SPANS - 12-13-14
TYPICAL CROSS SECTION

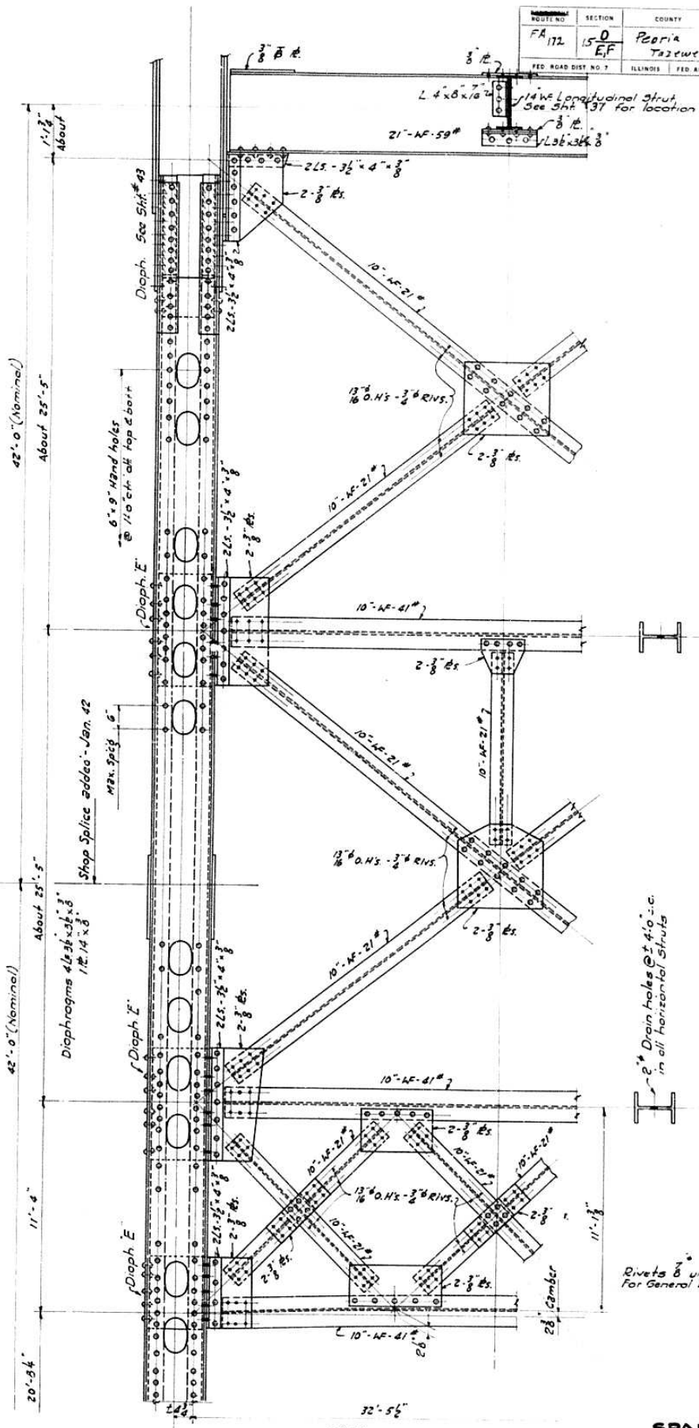
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. RTE. 172 SECTION 15-E. F. & D.
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FA 172	15-0 E,F	Peoria	44	20
		Tazewell	94	78
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	609-A	

SHEET NO 47
63 SHEETS SEC. 15-E
70 " SEC. 15-D F.P.L.





PORTAL AT U14 L14 & U14A L14A

STANDARD	COMPUTED	F.A.Cay A.K. Thomas
	CHECKED	R.B. Murphy
	DRAWN	A.L.J. J. Maleska
	CHECKED	R.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
M. T. Lewis BRIDGE ENGINEER
PASSED A.K. Sherman ENGINEER OF DESIGN
APPROVED Ernst Lieberman HIGHWAY ENGINEER
APPROVED 2-15-1946
W. W. Bach CHIEF HIGHWAY ENGINEER

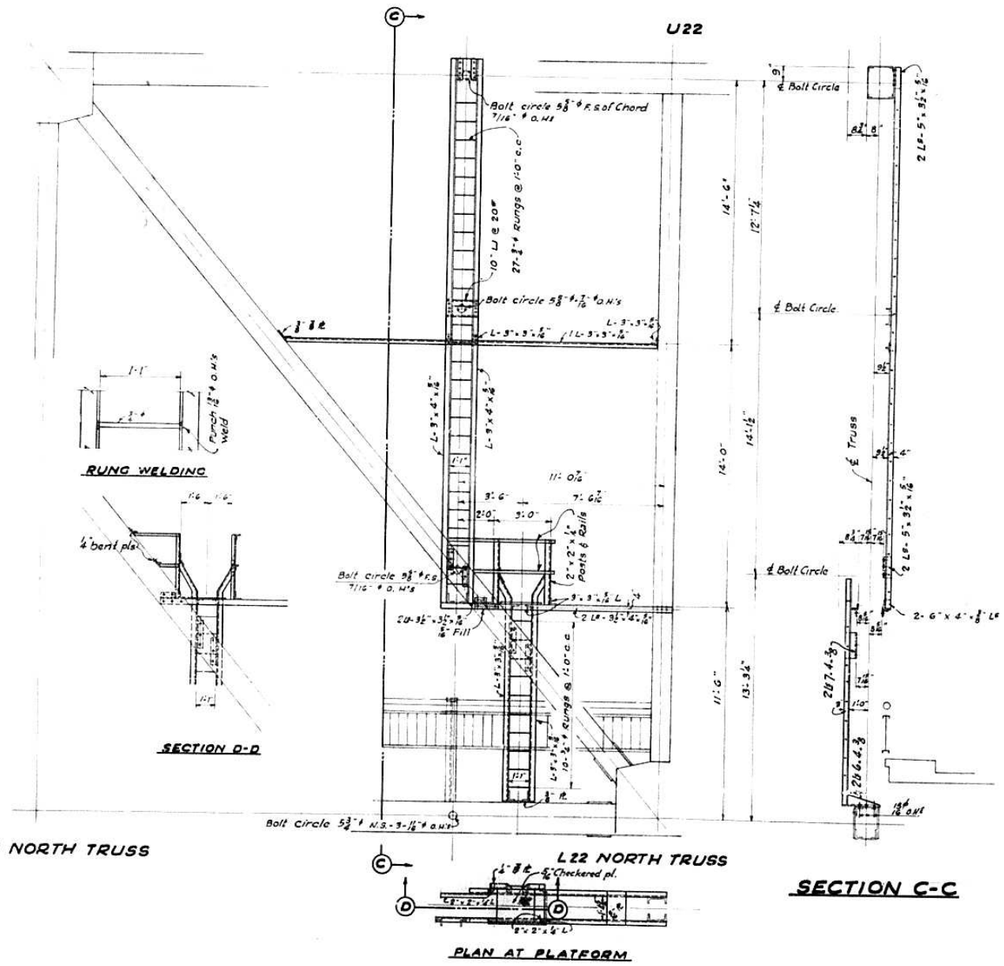
Rev. Jan 42 AL.

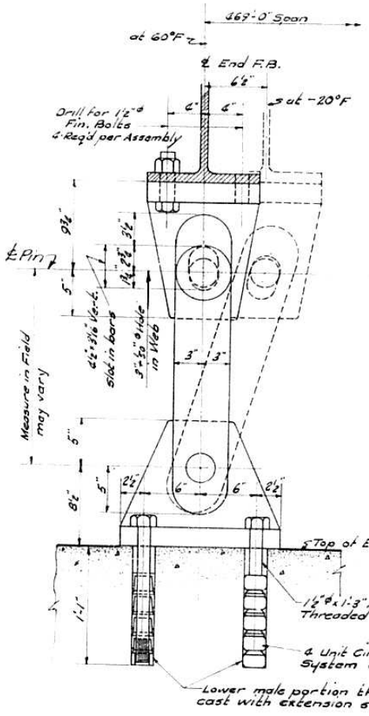
SPANS 12-13-14
PORTALS OVER INTERMED. PIERS
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. ROUTE 172 SEC. 15 E-F-[illegible]
PEORIA - TAZEWELL COUNTIES

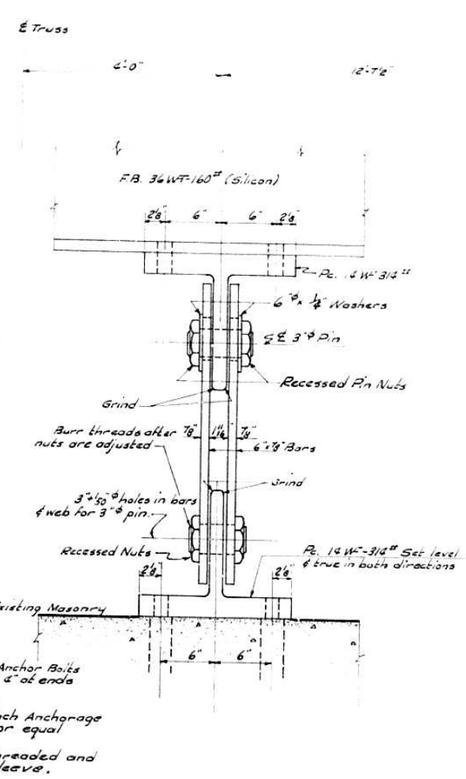
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D E,F	Peoria	44	21
		Tazewell	94	79
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 609A		

SHEET NO. 48
63 SHEETS Sec. 15-E
70 " SEC. 15-D-F P-L







TIE ANCHORAGE SYSTEM AT END FL BMS.
AT L_0 & L_{0_A} ~ SPANS 12 & 14 AT PIERS 10 & 13
4 Complete Assemblies Req'd.

LIGHTS AND LADDERS
PANELS 21-22-21A
SPAN 13

Note: Lights and ladders are west of vertical U22 L22 on North Truss and East of U22 L22 on South Truss, see Sht. # 42
On ladders shop weld all rungs, angle and bent plate connections.

Weld platform Ls, Ps & connections in shop. Weld rail sections complete. Field Conns. ½" ø bolts in rail, other connections ⅞" ø bolts except as noted.

STANDARD	COMPUTED	A.R. Thomas
	CHECKED	R.B. Murphy
	DRAWN	A.R.Thos. -TEFFT-
	CHECKED	R.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
BRIDGE ENGINEER
PASSED H.E. Sturman
ENGINEER OF DESIGN
APPROVED Ernest Lieberman
CHIEF HIGHWAY ENGINEER
APPROVED 5-15-1941
W.W. Bach
CHIEF HIGHWAY ENGINEER

Rev. 2-7-46 - Tie anchors provided - A.R.T.

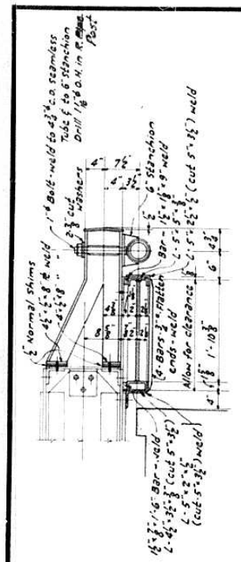
SPANS 12-13-14
LADDER DETAILS-ANCHORAGE DETAILS
ILLINOIS RIVER BRIDGE
HARVARD ST.- PEORIA
F.A. RTE. 172 · SEC. 15 E-F-[redacted]
PEORIA-TAZEWELL COUNTIES

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

SECTION	COUNTY	TOTAL SHEETS	SHEET NO
15-D	Peoria	44	22
15-E,F	Tazewell	94	80
ILLINOIS	FED. AID PROJECT	609A	

FED. ROAD DIST. NO. 7 — ROUTE NO. FA 172

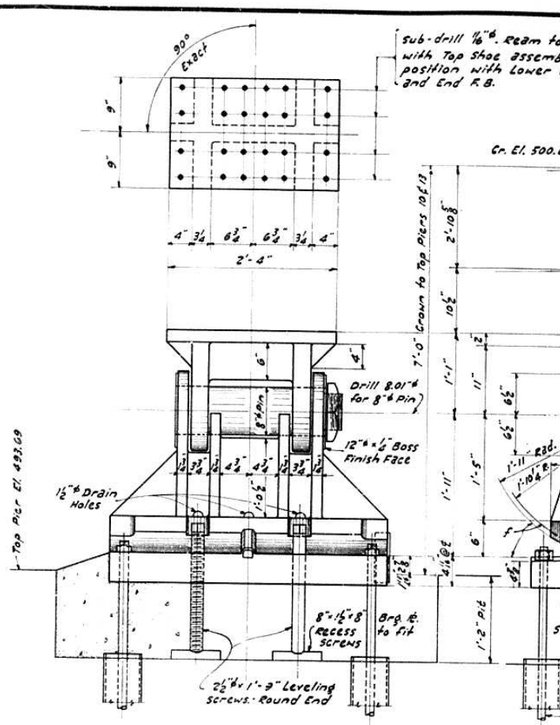
SHEET NO 49
63 SHEETS SEC. 15-E
70 - SEC. 15-D-F-P.L

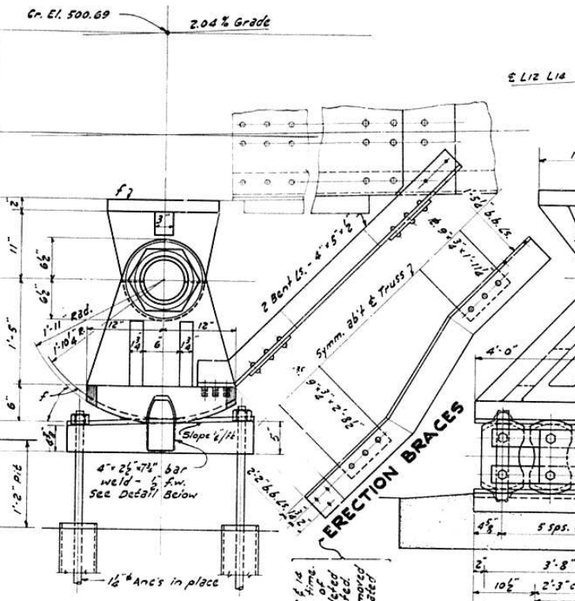

4" Normal Skins
1"ø Bolt-weld to 4½" c.d. seamless Tube & to 6" Stanchion
Drill 11/16" o.h. in 4" Pipe Post
4" Pipe Post
2½" cut Washer
6" Stanchion
4" Pipe Post
2-1½"x1½"x8" Bar-weld
2-1½"x1½"x8" Bar-weld
2-1½"x1½"x8" Bar-weld

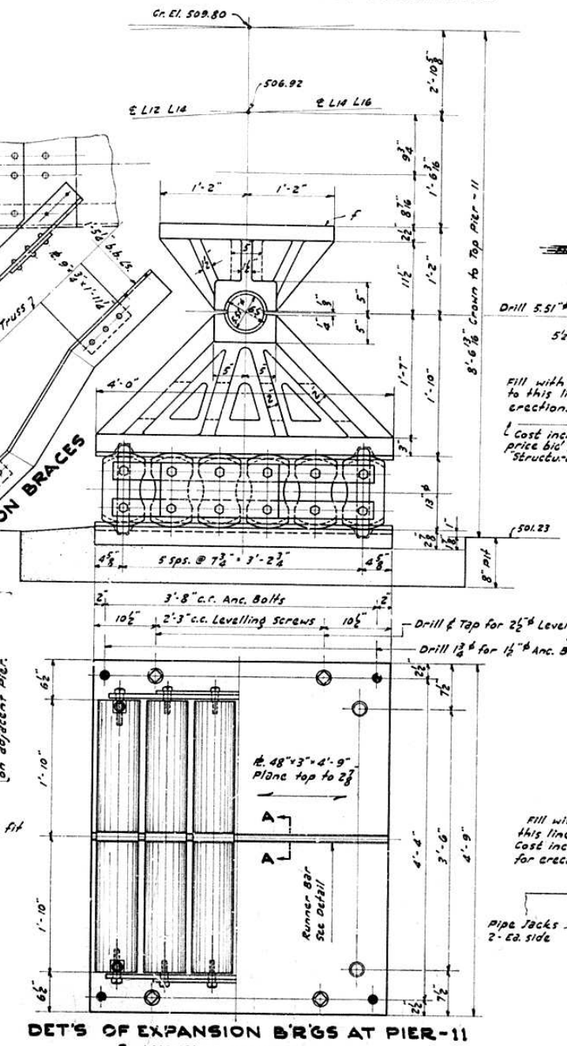
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

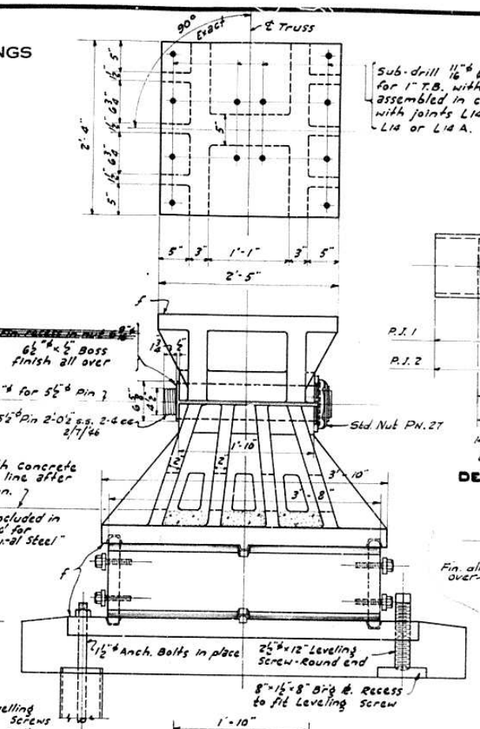
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D E,F	Peoria	44	23
		Tazewell	94	81
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	609A	

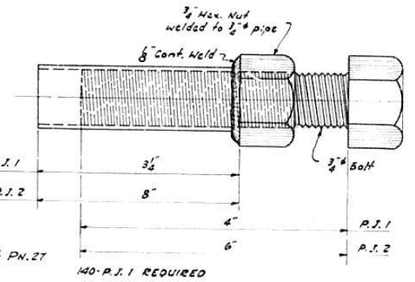
SHEET NO. 50
63 SHEETS SEC. 15-E
70 " SEC. 15-D-E-B,L



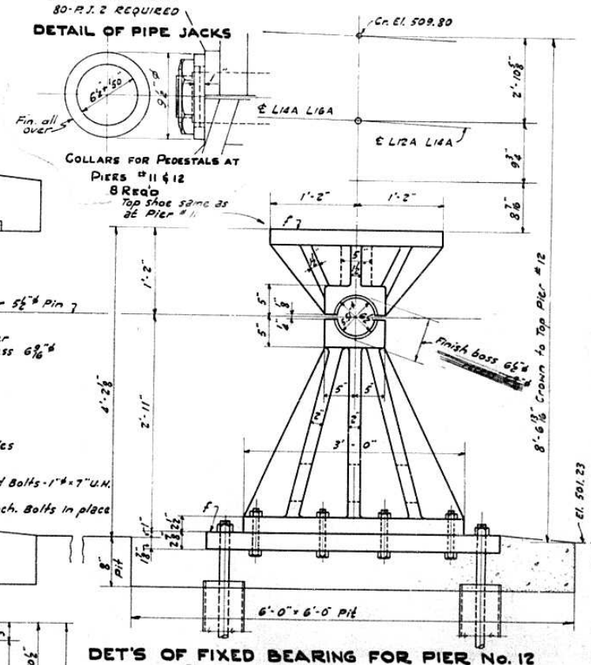


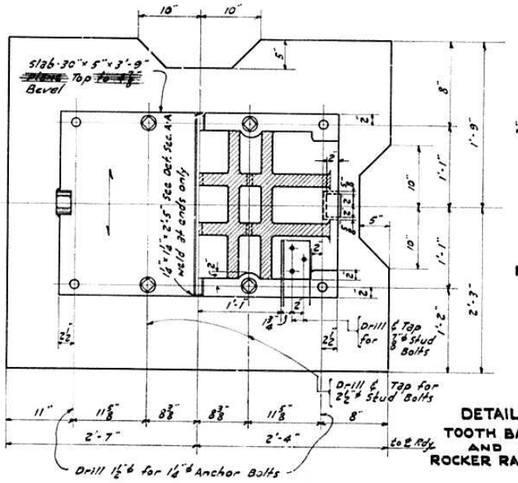




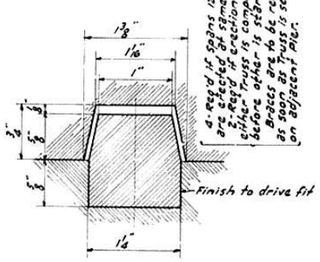


DETAIL OF PIPE JACKS

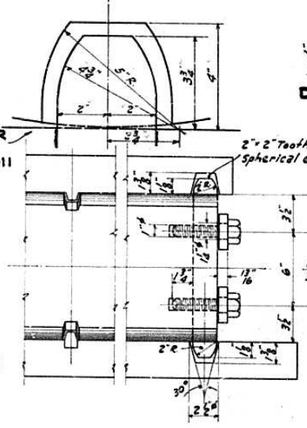




CAST STEEL ROCKERS FOR Lo END
4-ASSEMBLIES REQUIRED



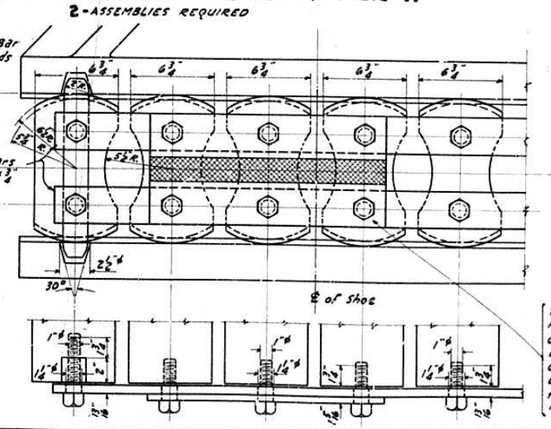
FULL SIZE SECTION A-A THRU GUIDE BAR

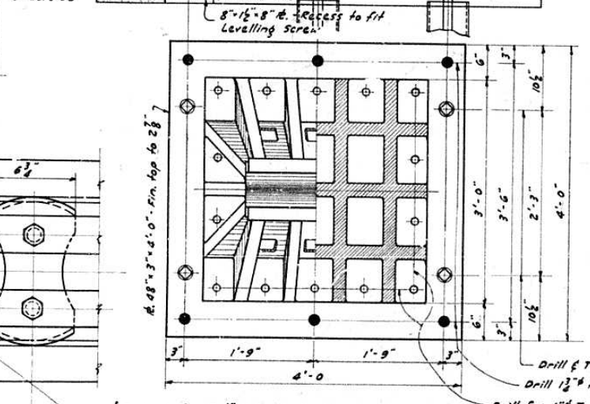


DETAIL TOOTH BAR AND ROCKER RADII

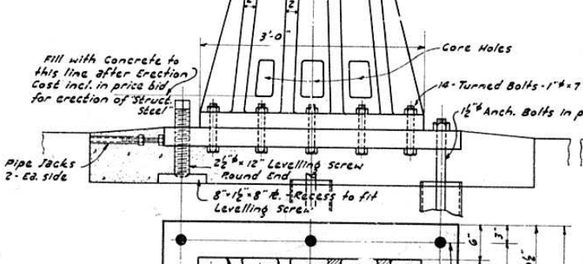
DETAILS OF SEGMENTAL ROCKERS, TOOTH BARS & LOCKING PLS.

DET'S OF EXPANSION B'R'GS AT PIER-11
2-ASSEMBLIES REQUIRED





2-Lock ℓ. 9"x 5/8"x 2'-8". Drill after Rockers have been adjusted for Temp. & Bottom chord deformation. Information for drilling will be furnished to the fabricator when closing Temp. has been determined by the Erector. Cross Hatched portion shall be flame cut as soon as closure has been made at L22.



DET'S OF FIXED BEARING FOR PIER No. 12
-2-ASSEMBLIES REQUIRED-

NOTE - All castings shall be cast steel A.S.T.M. Spec's A-27-36 T Grade B1. Weight of cast steel is included in Item "Cast steel" in Bill of Material. Weight of all other material on this sheet is included in Item "Structural Steel" in Bill of Material.
Shop scribe ℄ of Bearing on ends of Rockers, on Lock Bs., on Roller Nests, on ends of all castings, & Brg Bs.
Pits shall be filled with Incor or equal cement concrete by Cont^r for Sec. 15-E after all bearings have been adjusted to their final elevations. Cost shall be included in price bid for erecting Struct. Steel (Carbon). After concrete has set, leveling screws shall be removed and holes grouted.
After removal, Pipe Jacks shall become the property of the Department.

BILL OF MATERIAL - BEARING DETAILS - SPANS 12-13-14

ITEM		AMOUNT	SECTION
Cast Steel	Lbs.	36,620	15-E-F-P
Structural Steel (carbon)	Lbs.	* 36,640	

* Item "Struct. Steel" includes Anchor Bolts, Brg. Bs, Pins, Nuts, Rollers, Tooth Bars, Bolts, Pipe Jacks, Braces etc.

STANDARD	COMPUTED	A.L. Thomas
	CHECKED	R.O. Murphy
	DRAWN	A.L.T., J. Malecki
	CHECKED	R.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5- 1941
A.T. Bruhl BRIDGE ENGINEER
PASSED A.N. Sherman ENGINEER OF DESIGN
APPROVED Ernst Lieberman CHIEF HIGHWAY ENGINEER
APPROVED 2-19-1942
W.W. Bath CHIEF HIGHWAY ENGINEER

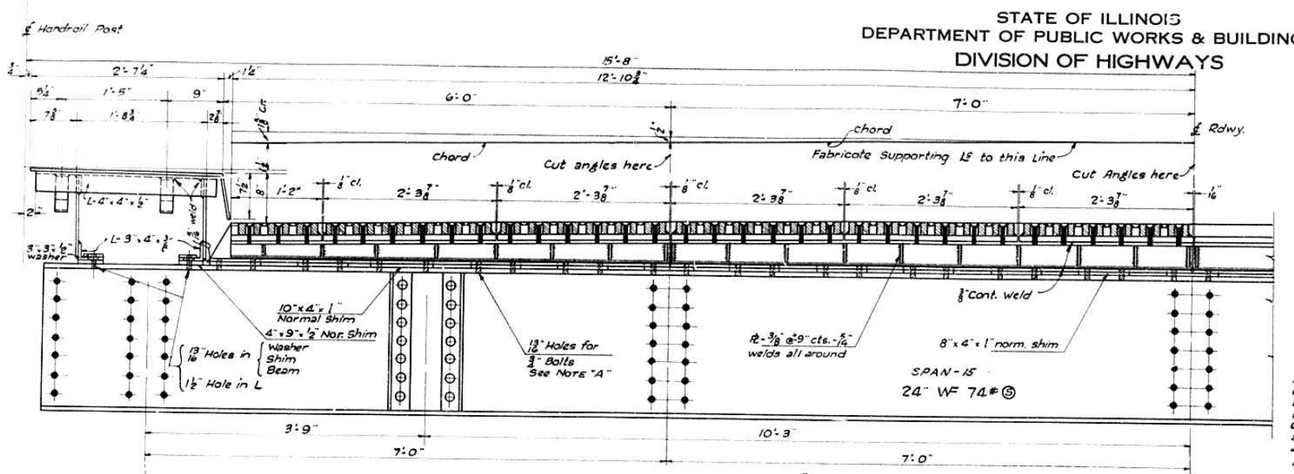
BEARING DETAILS
SPANS 12-13-14
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. ROUTE 172 SECTION 15-E. F.
PEORIA - TAZEWELL COUNTIES

Rev. 2-14-46 - A.L.T. - R.B.M.

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

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FA 172	15-D E,F	Peoria Tazewell	44 94	24 82
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

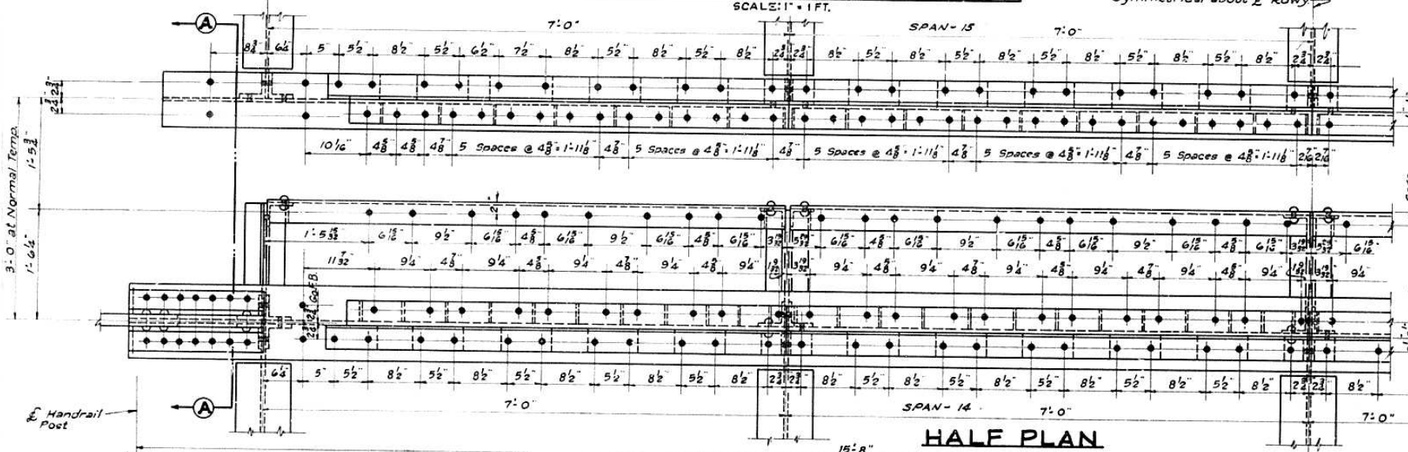
SHEET NO 51
63 SHEETS Sec. 15-E
70 " Sec. 15-D-F P.L.



HALF ELEVATION - SPAN 15 SIDE

SCALE: 1" = 1 FT.

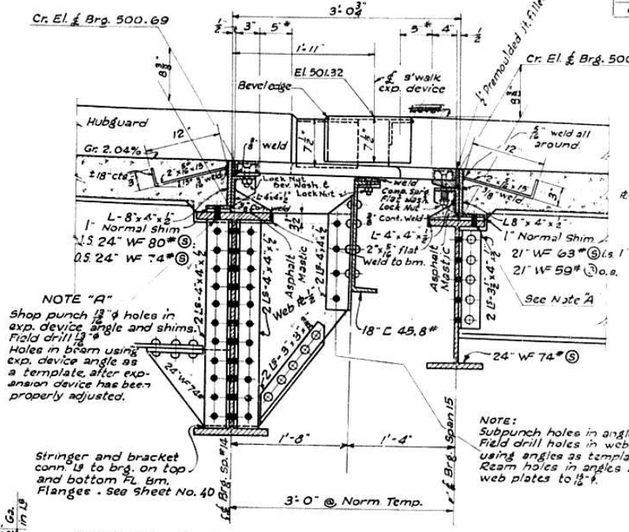
Symmetrical about ℄ Rdwy.



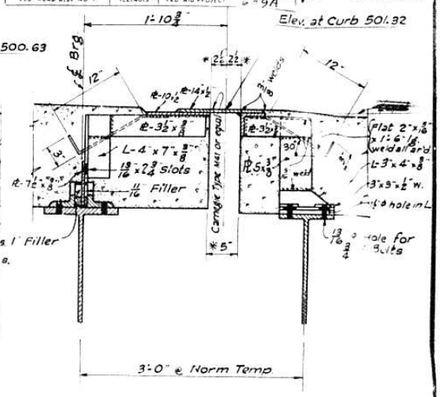
HALF PLAN

HALF ELEVATION - SPAN 14 SIDE

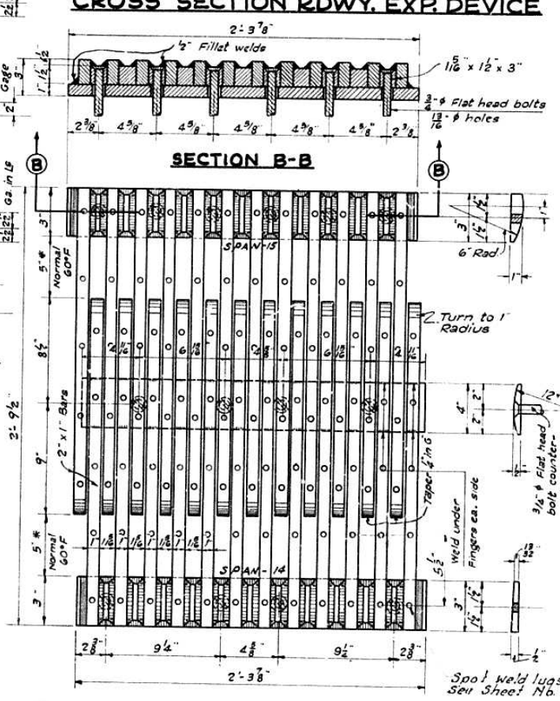
REQUIRED
20 TYPICAL UNITS - 2'-3 7/8"
3 END UNITS - 1'-2"
1 END UNIT - 1'-4 5/16"



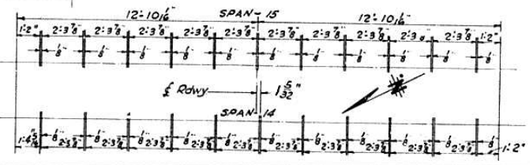
CROSS SECTION RDWY. EXP DEVICE



SECTION A-A



TYPICAL RDWY-EXP. UNITS



LOCATION SKETCH OF RDWY. EXP. UNITS

* NOTE TO ERECTOR

Decrease each dimension by ⅛" per 100 ft. of bridge for each 15° rise in temperature above normal temperature of 60°F.

Increase by the same amount for each 15°F drop in temperature below normal temperature of 60°F.

NOTES

Copper bearing steel (A.S.T.M. Designation A-7-36 with 0.2% copper added) shall be used in the following members of expansion device:

All members making up the roadway expansion finger units.

8"x4"x½" & 4"x4"x½" roadway supporting angles.

4"x4"x½" Sidewalk angles.

10"x½" sidewalk expansion plates.

Roadway & sidewalk expansion devices shall be assembled in the shop in their proper position with the two adjacent spans in place and shall be left assembled for shop inspection.

Expansion device shall be fabricated with 1" normal shim between floor beams and expansion device supporting angles. Normal shims shall be made up of 2-¼"; 2-⅛" & 4-1/16" shims.

Use ⅞" ϕ rivets except as noted.

¾" ϕ flat head bolts, nuts, springs & washers shall be sheradized.

Paint (same as "Structural Steel")

Asphaltic mastic & ½" premoulded jt. filler incl. in unit price bid for "Erecting Structural Steel."

BILL OF MATERIAL

Sec. 15-E	Structural Steel (Carbon)	Lbs.	10,770
Sec. 15-F	" " "	Lbs.	10,770
Sec. 15-P	" " "	Lbs.	10,770

DETAIL OF EXPANSION DEVICE-PIER 13

STANDARD	COMPUTED	A.O. Hansen	
	CHECKED	S. Nicholson	
	DRAWN	A.O.H. - HENRY D. TEFFT	
	CHECKED	P.M.	
SPECIAL	ASSEMBLED		
	CHECKED		

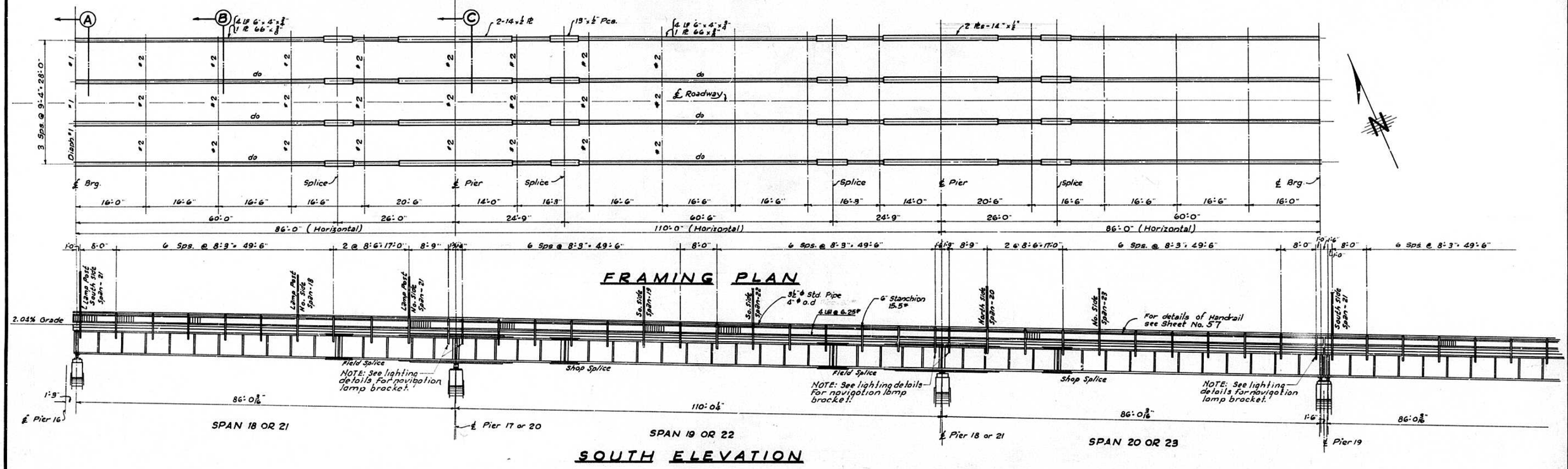
EXAMINED 5-5-1941 — M.F. Smith, BRIDGE ENGINEER
PASSED — H.C. Sherman, ENGINEER OF DESIGN
APPROVED — Ernest Lieberman, HIGHWAY ENGINEER
APPROVED 2-15-1946 — W.W. Roth, CHIEF HIGHWAY ENGINEER

ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F. A. RTE. 172 — SEC. 15-E-F-P-D-P
PEORIA - TAZEWELL COUNTIES

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

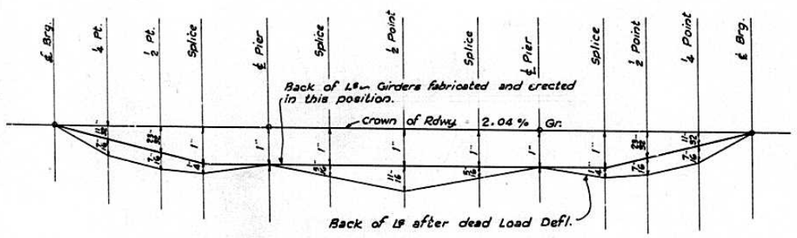
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15-D E F	Peoria Tazewell	44 94	25 83
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 609A		

SHEET NO. 52
63 SHEETS SEC. 15E
70 " SEC. 15-D-F. P.L.

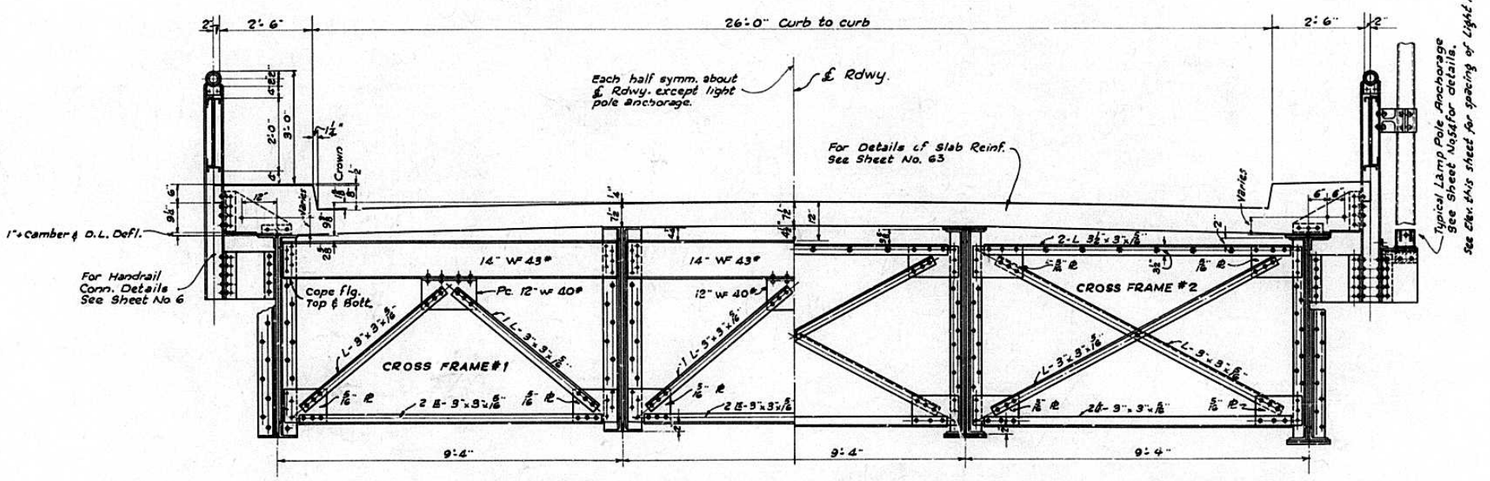


FRAMING PLAN

SOUTH ELEVATION



CAMBER AND DEFL. DIAGRAMS



HALF SECTION A-A

HALF SECTION C-C AS SHOWN
HALF - SECTION B-B SIMILAR

STANDARD	COMPUTED	A.L. Thomas
	CHECKED	P. Mideun
	DRAWN	A.L. Thos. HENRY TEFFT.
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
M. F. Bullock BRIDGE ENGINEER
PASSED H.E. Surman ENGINEER OF DESIGN
APPROVED Ernst Lackerman DISTRICT HIGHWAY ENGINEER
APPROVED 2-15-1946
W. W. Pelly CHIEF HIGHWAY ENGINEER

BILL OF MATERIAL — SPANS 18 TO 23 INCL.

SEC. 15-E.F.P.	Structural Steel (carbon) Lbs.	700,435

Item "Structural Steel" includes weight of Rollers, Bearing &, Pintles, Anchor Bolts, Rail etc. Wgt of Exp. Devices not included.

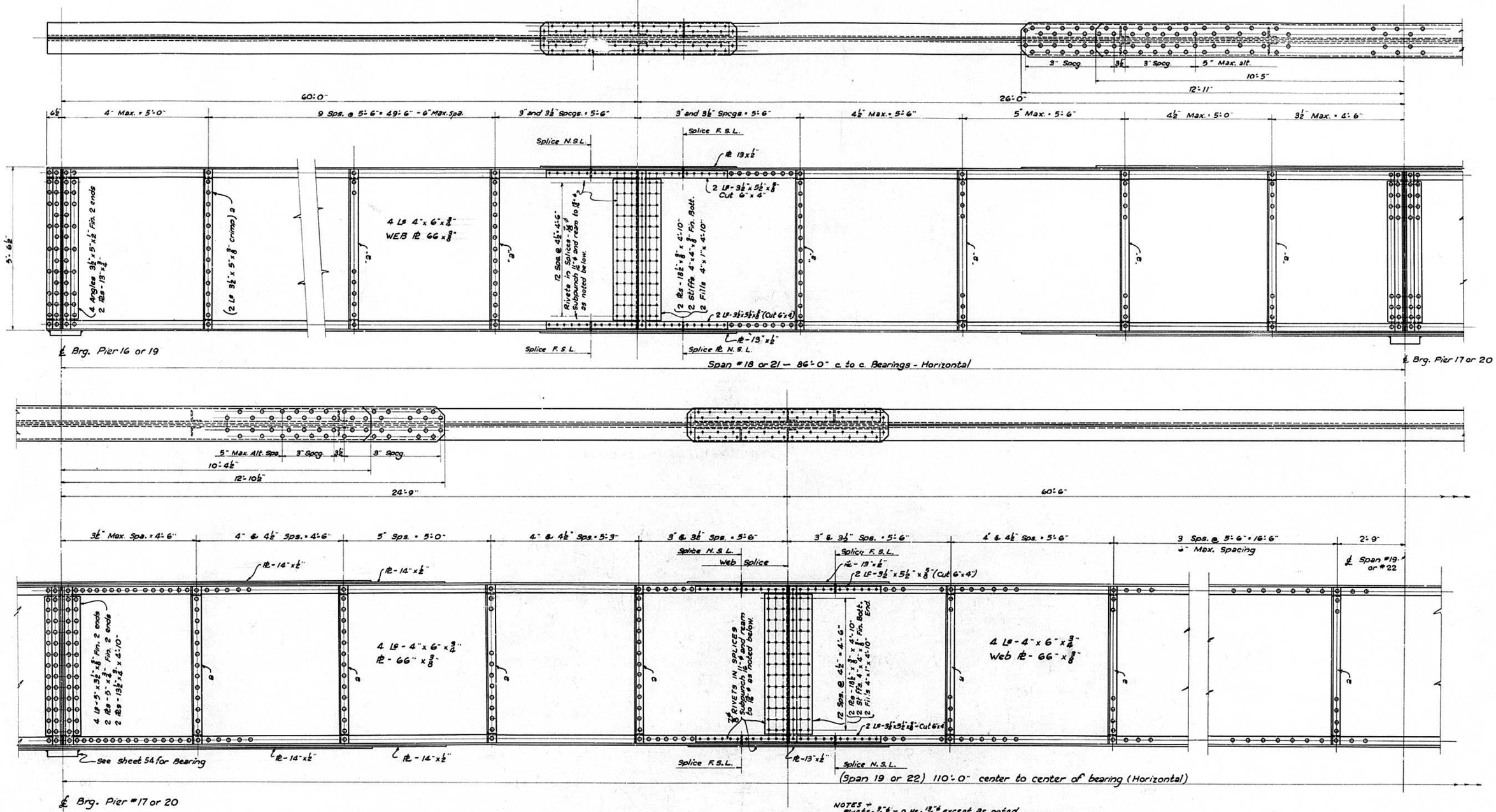
PLAN-ELEVATION AND CROSS-SECTION
SPANS 18 TO 23 INCLUSIVE

ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F.A. RTE. 172- SECT. 15 E-F-[illegible]-D
PEORIA - TAZEWELL COUNTIES

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 B BP	Peoria	44	26
		Tazewell	94	84
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 53
63 SHEETS SEC. 15-E
70 - SEC. 15-D F.P.L



STANDARD	COMPUTED	A.R. Thomas
	CHECKED	P. Nielsen
	DRAWN	Al. Theis. HENRY D. TEFFT JR.
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5- 1941
M. T. Burch BRIDGE ENGINEER
PASSED H.E. Surman ENGINEER OF DESIGN
APPROVED Ernest Fickenscher DIVISION HIGHWAY ENGINEER
APPROVED 5-15-1946 W. W. Polk CHIEF HIGHWAY ENGINEER

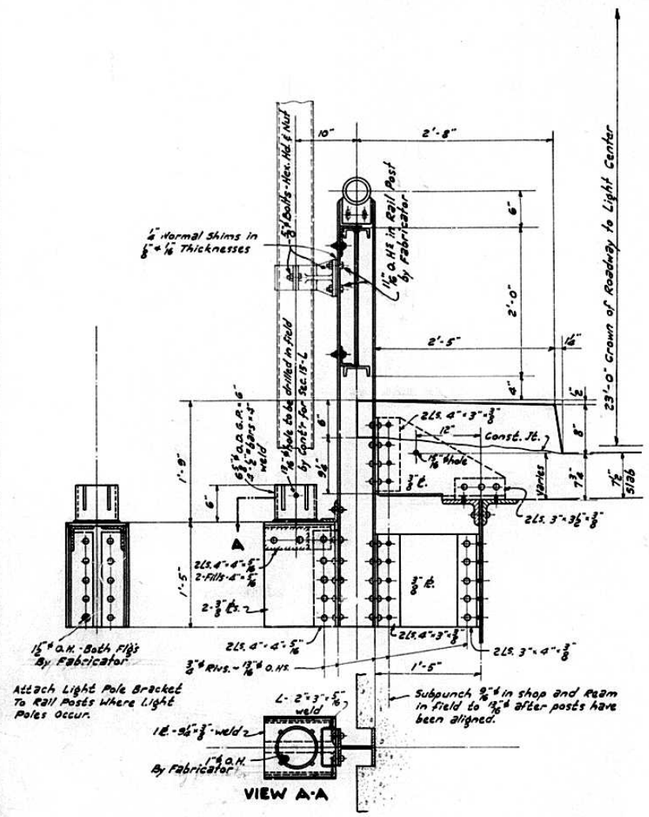
NOTES:
Rivets - ⅞" ø unless otherwise noted.
All open holes in splices shall be subpunched 13/16" ø and reamed to 1⅞" ø while in cambered position.
Each line of girders shall be completely assembled in the cambered position shown on sheet No. 52
For camber diagram see sheet No. 52
Leave assembled for inspection.
Shop paint one coat of red lead after inspection.

TYPICAL GIRDER DETAILS
SPANS 18-19-20-21-22-23
ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F. A. RTE. 172 - SEC. 15-E-F-[illegible]
PEORIA - TAZEWELL COUNTIES

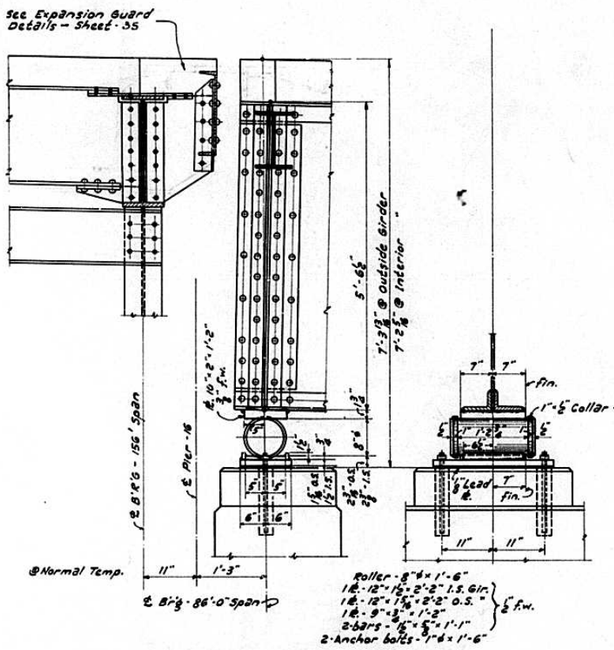
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D E.F	Peoria	44	27
		Tazewell	94	85
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609 A		

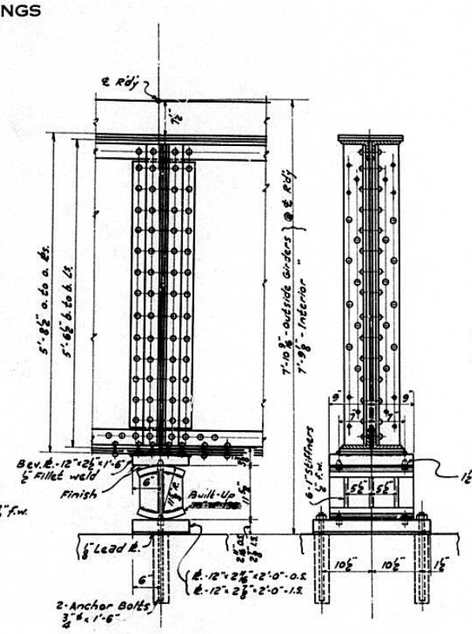
SHEET NO. 54
63 SHEETS Sec. 15-E
70 " Sec. 15-D-F PL



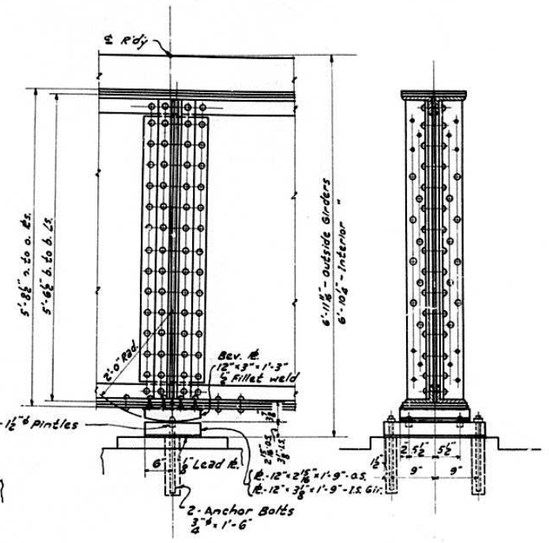
RAIL POST DETAIL



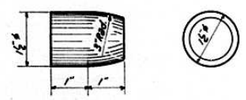
BEARING DETAILS - PIER - 16



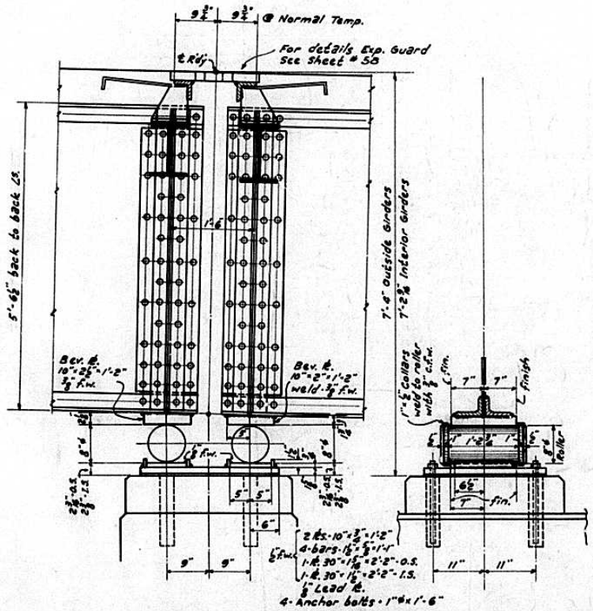
BEARING DETAILS - PIER - 17 OR 20



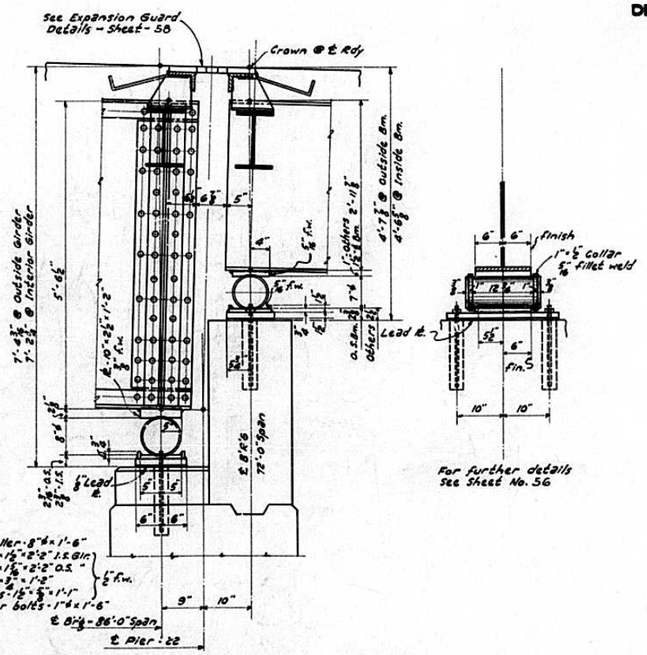
BEARING DETAILS - PIER - 18 OR 21



DETAIL OF PINTLE



BEARING DETAILS - PIER - 19



For further details see Sheet No. 56

BEARING DETAILS - PIER - 22

STANDARD	COMPUTED	A.L. Homer
	CHECKED	P. Mackenzie
	DRAWN	A.C.T. J. Mabeck
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
A.T. Bruce
BRIDGE ENGINEER
PASSED
H. Sturman
ENGINEER OF DESIGN
APPROVED Ernest Fisherman
CHIEF HIGHWAY ENGINEER
APPROVED 2-15-1946
W.W. Bruce
CHIEF HIGHWAY ENGINEER

BEARING DETAILS
- SPANS 18 TO 23 INCL. -
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. RTE. 172 SEC. 15-E-F-D-f
PEORIA - TAZEWELL CO'S

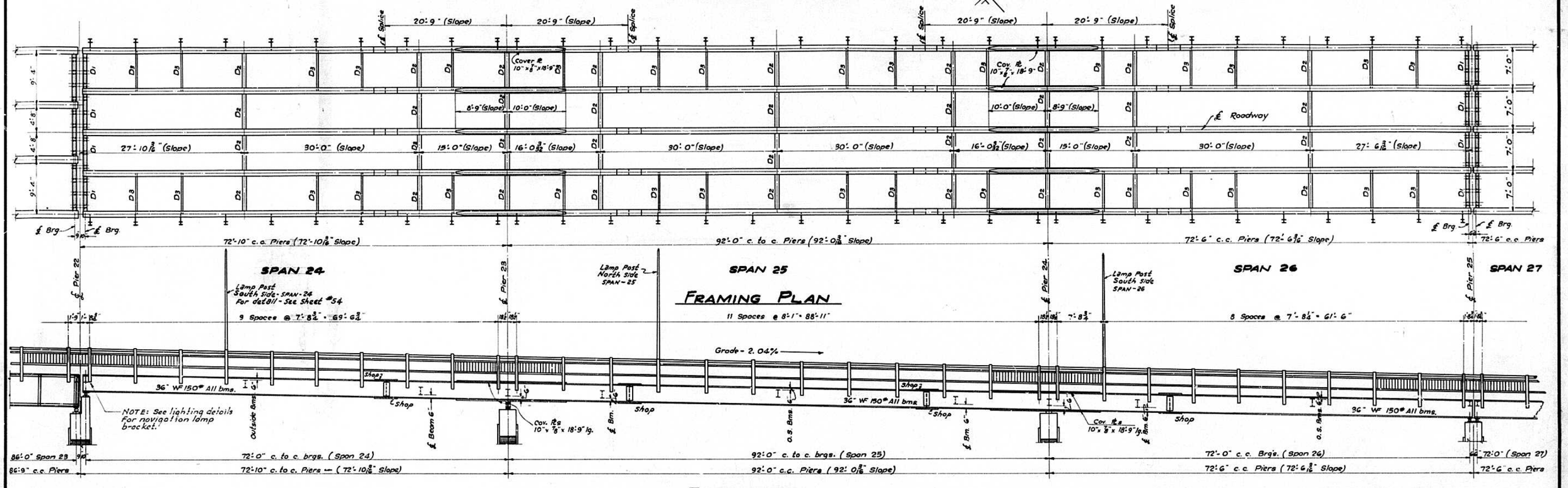
Rev. 2-14-46 - ALT. - R.B.M.

Rockers X
Rev. Not.

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

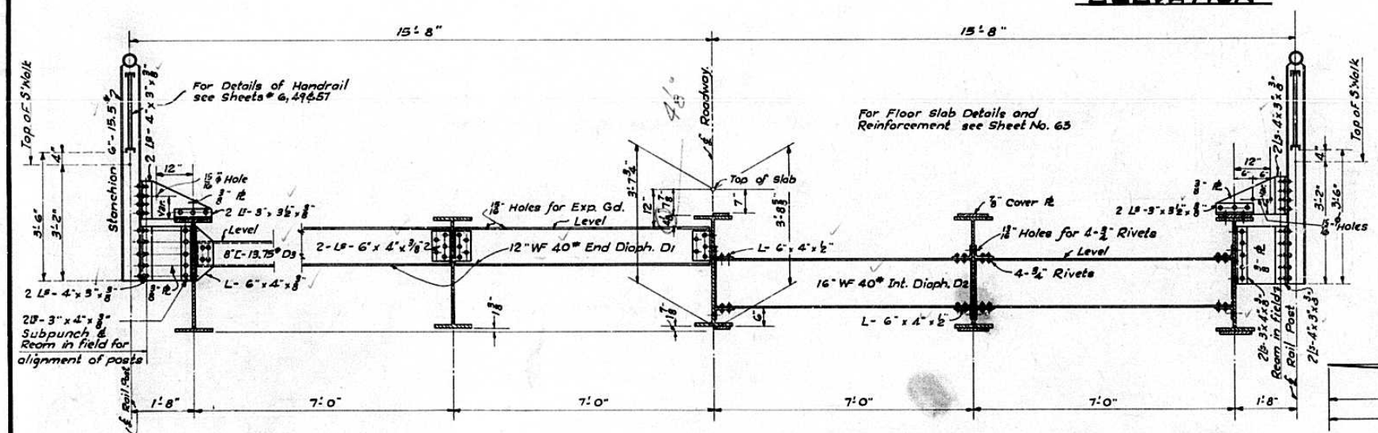
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D	Peoria	44	28
	15 E,F	Tazewell	94	86
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 55
63 SHEETS SEC. 15-E
70 " SEC. 15-D-P P-L



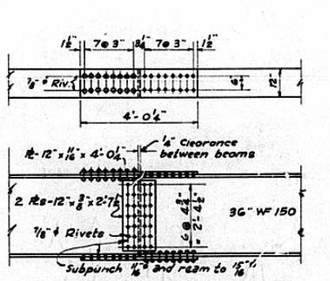
FRAMING PLAN

ELEVATION

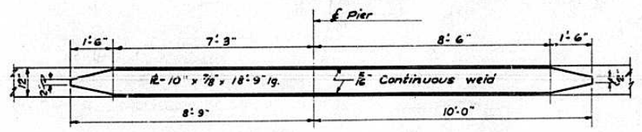


HALF CROSS SECTION END PIERS

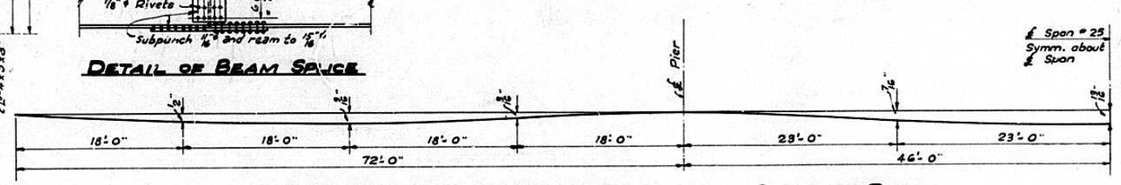
HALF CROSS SECTION INTERMED. PIERS



DETAIL OF BEAM SPLICE



DETAIL OF COVER PLATE



DEAD LOAD DEFLECTION DIAGRAM AT QUARTER POINTS

SCALE: ½" = 1'-0"

STANDARD	COMPUTED	Rud Hansen
	CHECKED	[illegible]
	DRAWN	Rud. HENRY D. TEFFT
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
M. T. Burch BRIDGE ENGINEER
PASSED H. C. Burman ENGINEER OF DESIGN
APPROVED Ernst Zehnder CHIEF HIGHWAY ENGINEER
APPROVED 2-15-1946
W. W. Pack CHIEF HIGHWAY ENGINEER

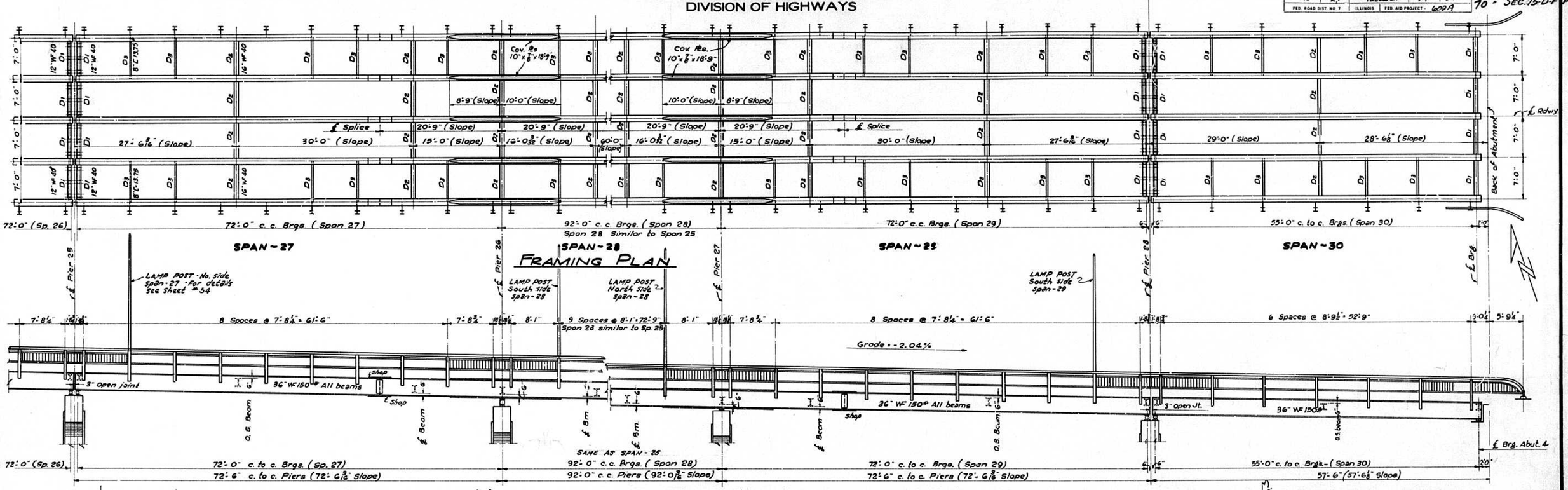
For Notes - See Sheet No. 54
For Handrail Det's - See Sheets # 6, 49 & 57

DETAILS OF SPANS 24-25-26
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F. A. RTE. 172 - SECTION 15-E-F-D-P
PEORIA - TAZEWELL COUNTIES

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

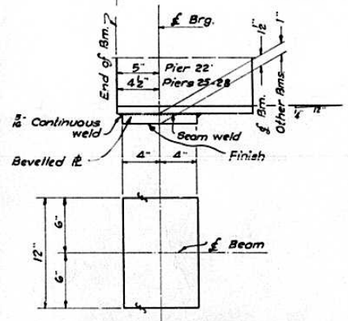
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D E F	Peoria Tazewell	44 94	29 87
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 56
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F P.L.

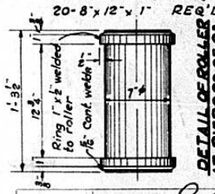


FRAMING PLAN

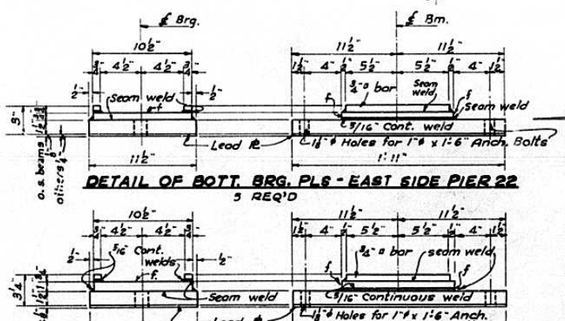
ELEVATION



DETAILS OF TOP BRG. PLS AT PIERS 22, 25 & 28
5 - 8" x 12" x 1½" REQ'D
20 - 8" x 12" x 1" REQ'D



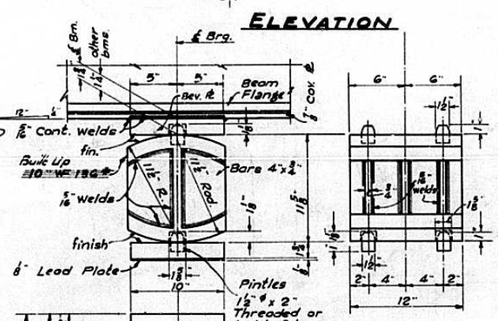
DETAIL OF ROLLER AT PIERS 22, 25 & 28
25 REQUIRED



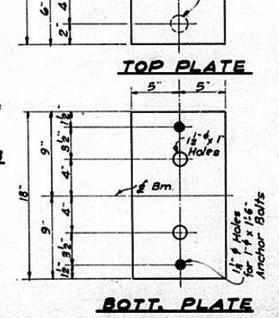
DETAIL OF BOTT. BRG. PLS - EAST SIDE PIER 22
5 REQ'D

DETAIL OF BOTT. BRG. PLS - WEST SIDE PIERS 25 & 28
10 REQ'D

DETAIL OF BOTT. BRG. PLS. - EAST SIDE PIERS 25 & 28
10 REQ'D

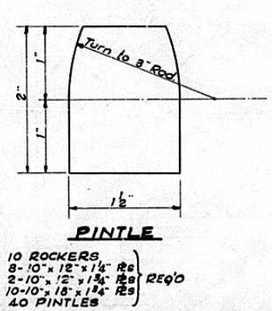


ROCKER



TOP PLATE

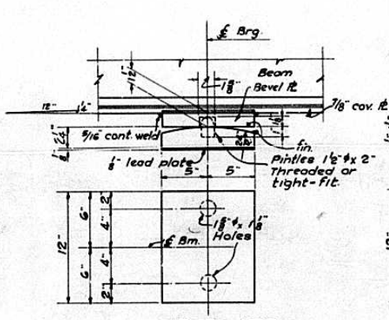
BOTT. PLATE



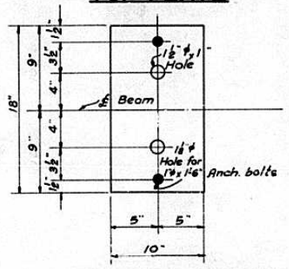
PINTLE

10 ROCKERS
8 - 10" x 12" x 1¼" ℄s
2 - 10" x 12" x 1⅜" ℄s
10 - 10" x 18" x 1¼" ℄s
40 PINTLES
} REQ'D

DETAIL OF ROCKER & PLS @ PIERS 23 & 26

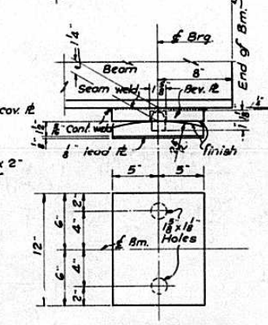


TOP PLATE

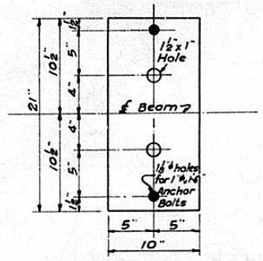


BOTTOM PLATE
10 - 10" x 12" x 1½" ℄s
10 - 10" x 18" x 2¼" ℄s
20 PINTLES
} REQ'D

DETAIL OF PLS - PIERS 24 & 27



TOP PLATE



BOTTOM PLATE
5 - 10" x 12" x 1¼" ℄s
5 - 10" x 21" x 1'-2" ℄s
10 PINTLES
} REQ'D

DETAIL OF PLS @ ABUT. 4

BILL OF MATERIAL
SPANS 24-25-26-27-28-29-30

Sec. 15-E	Structural Steel (Carbon)	Lbs. 563,470
Sec. 15-F	Structural Steel -	Lbs. 563,470
Sec. 15-P	Structural Steel -	Lbs. 563,470

NOTES

See Sheet #55 for Detail of beam splices cover plates and typical cross section.

Cover plates shall be welded to beams with ⅜" continuous welds and shall be done in such a manner as to prevent warping or buckling of the main material. The plate shall be clamped securely to the beam flange, before welding. The skip-step back method of welding shall be used or other means, if necessary, to obtain satisfactory results.

Anchor bolts for Spans 24 to 30 incl. to be furnished by Contractor for Sect. 15-F and set by Contractor for Sect. 15-E.

Rivets ⅝" ø - Holes 11/16" ø except as noted at splices.

All connections shall be riveted except as noted.

For General notes see Sheet No. 37
For Detail of Handrail see Sheets # 6, 49 & 57

STANDARD	COMPUTED	Rut Iversen
	CHECKED	S. Anderson
	DRAWN	Rut - H.D. TEFFT JR.
	CHECKED	S.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
M. F. Burch
BRIDGE ENGINEER
PASSED A. Thurman
ENGINEER OF DESIGN
APPROVED Ernest Tuchman
HIGHWAY ENGINEER
APPROVED 2-15-1946
W. W. Bolt
CHIEF HIGHWAY ENGINEER

LAYOUT FOR SPANS 27-30 INCL.
BEARING DETAILS FOR SPANS 24-30
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F. A. RTE. 172 - SECT. 15E-F-P-L
PEORIA - TAZEWELL COUNTIES

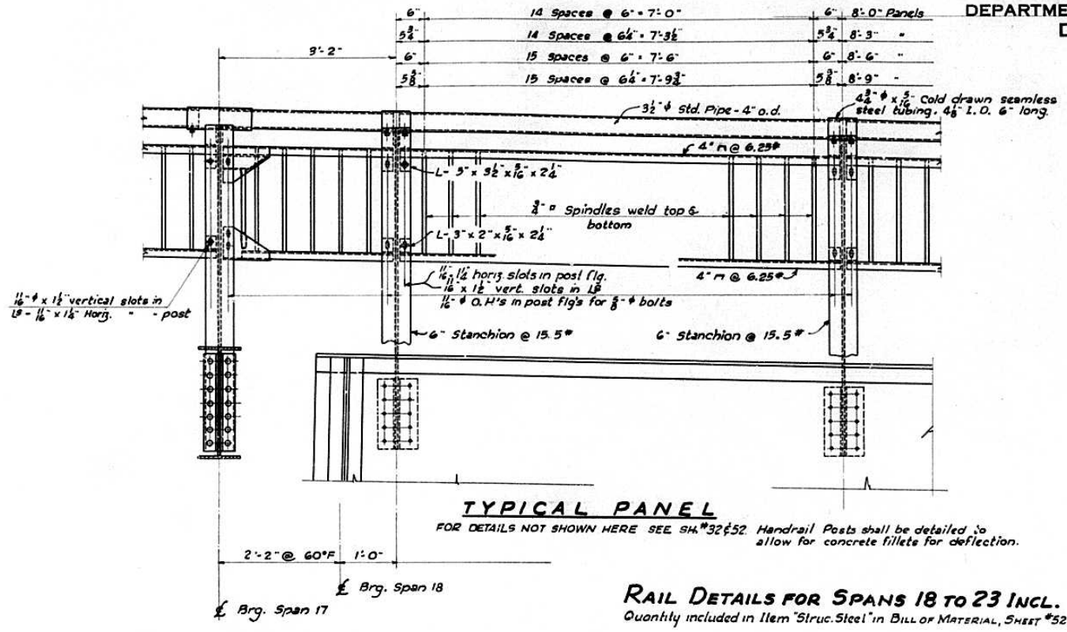
Rev. 2-14-46 - A.L.T. - R.P.B.M.

Rockers X
Rev. 1-46

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15-D, E, F	Peoria	44	30
		Tazewell	94	88
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609		

SHEET NO. 57
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F P.L

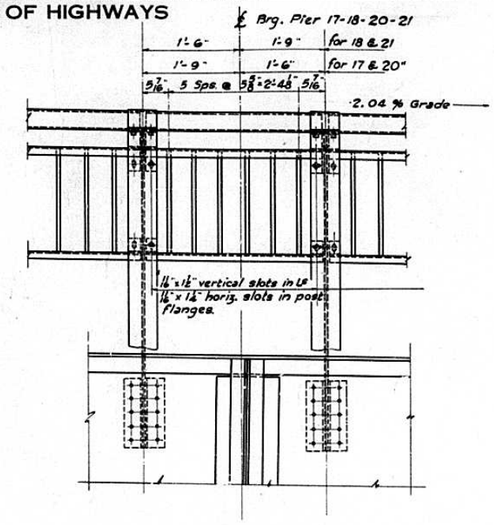


TYPICAL PANEL

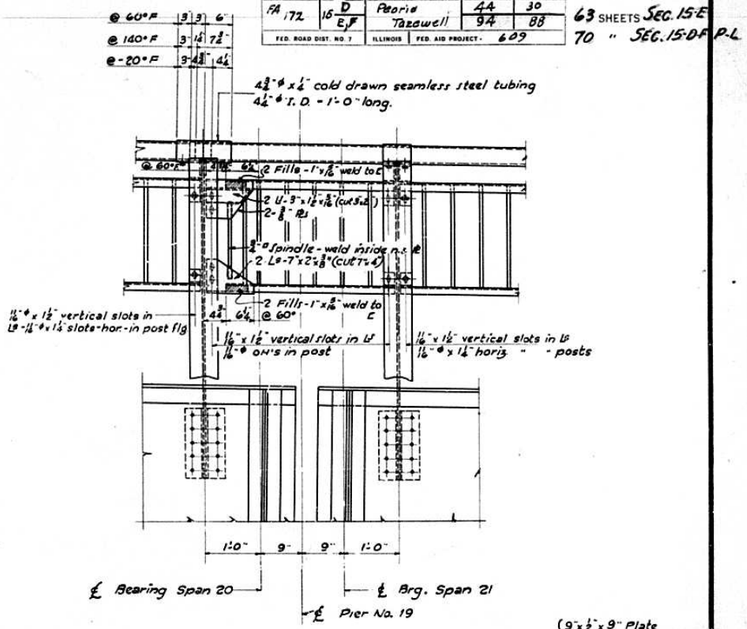
FOR DETAILS NOT SHOWN HERE SEE SH.#32 & 52. Handrail Posts shall be detailed to allow for concrete fillets for deflection.

RAIL DETAILS FOR SPANS 18 TO 23 INCL.

Quantity included in Item "Struc. Steel" in BILL OF MATERIAL, SHEET #52.



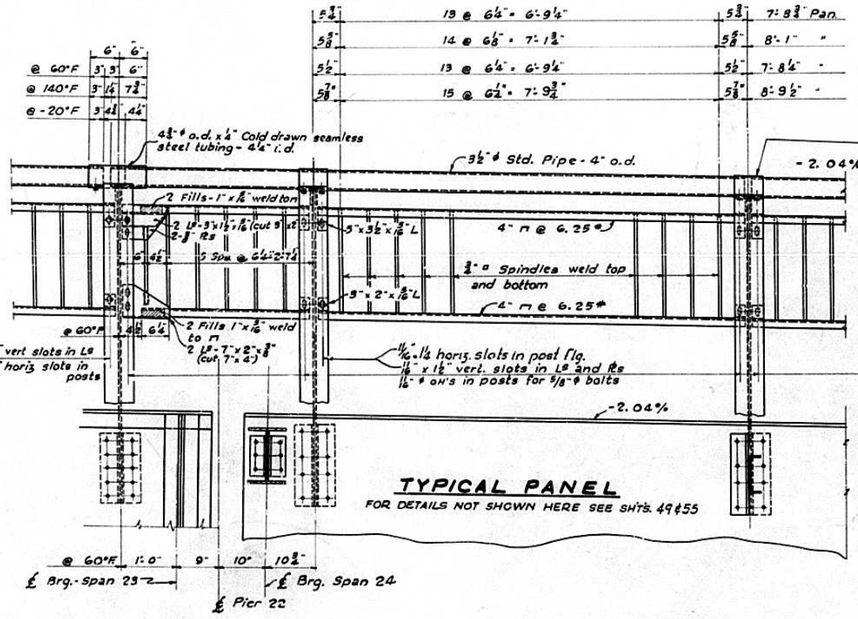
RAIL AT PIERS 17-18-20-21



RAIL AT PIERS 17-18-20-21

RAIL DETAILS AT PIER 16

SEE SH. No. 32 FOR DETAILS NOT SHOWN HERE



TYPICAL PANEL

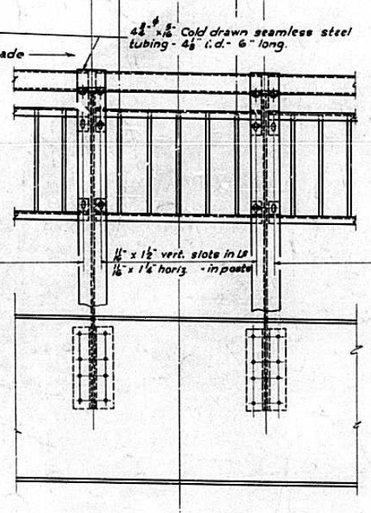
FOR DETAILS NOT SHOWN HERE SEE SH'S. 49 & 55

PIER 22

STANDARD	COMPUTED	A. L. Thomas
	CHECKED	[illegible]
	DRAWN	A.L.J.
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

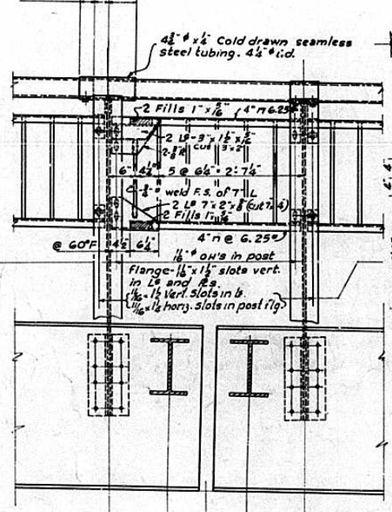
EXAMINED 5-5-1941
M. F. Russell BRIDGE ENGINEER
PASSED H. C. Surman ENGINEER OF DESIGN
APPROVED Ernest Zieberman HIGHWAY ENGINEER
APPROVED 2-15-1941
W. W. Bath CHIEF HIGHWAY ENGINEER

NOTE: Handrail posts shall be detailed to allow for concrete fillets for deflection.



PIER 23-24-26-27

℄ Brg.



PIER 25

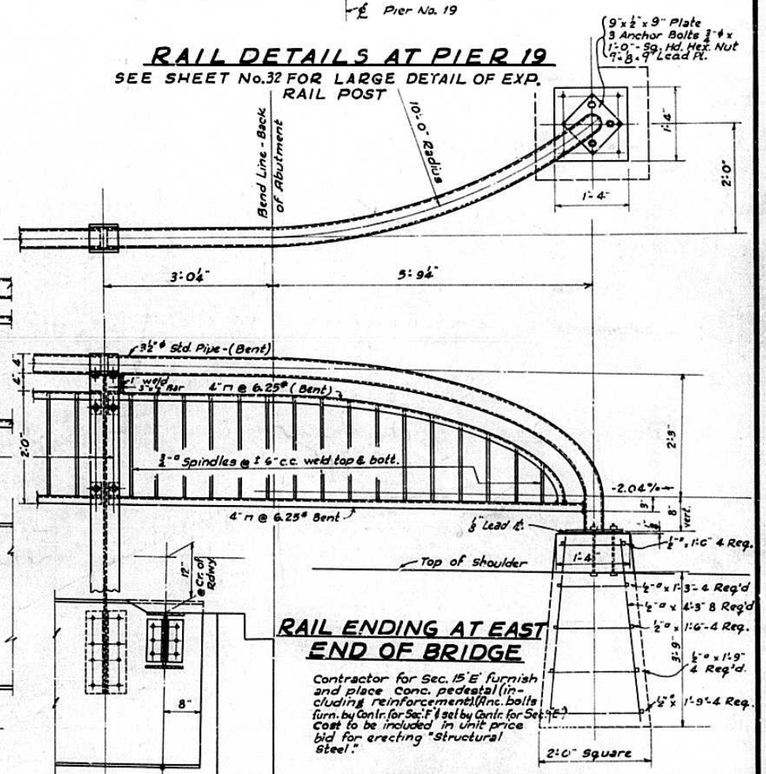
USE SAME DETAIL AT PIER 28

RAIL DETAILS FOR SPANS 24 TO 30 INCL.

Quantity included in Item "Struc. Steel" in BILL OF MATERIAL on Sheet #56.

RAIL DETAILS AT PIER 19

SEE SHEET No. 32 FOR LARGE DETAIL OF EXP. RAIL POST



RAIL ENDING AT EAST END OF BRIDGE

Contractor for Sec. 15-E furnish and place Conc. pedestal (including reinforcement) Anc. bolts furn. by Contr. for Sec. F & set by Contr. for Sec. E) Cost to be included in Unit price bid for erecting "Structural Steel."

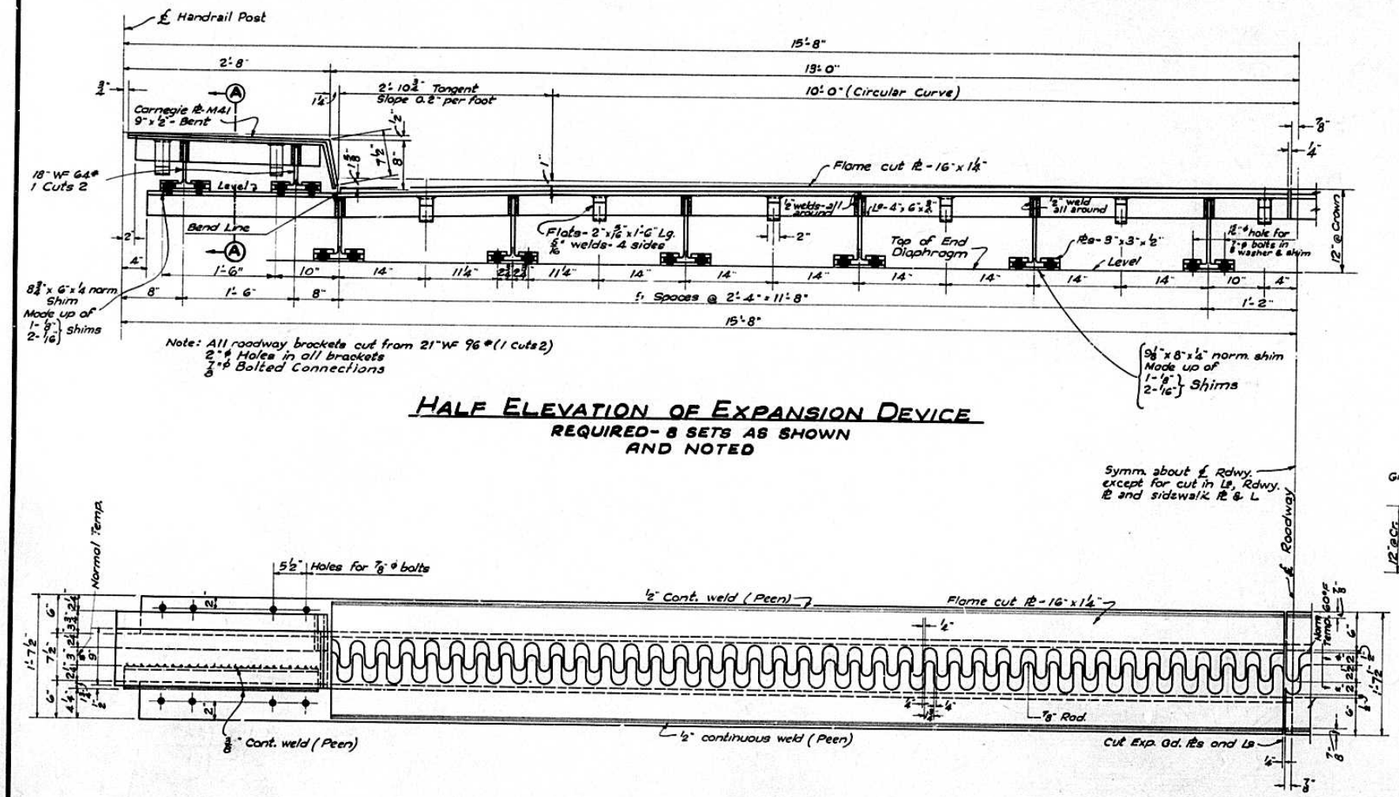
RAIL DETAILS SPANS 18 TO 30 INCL.

ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F.A. RT. 172 - SEC. 15-E.-F.-
PEORIA - TAZEWELL COUNTIES

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

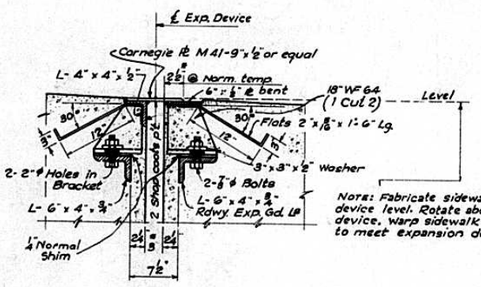
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D	Peoria	44	34
	15 E,F	Tazewell	94	89
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 58
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F P.L



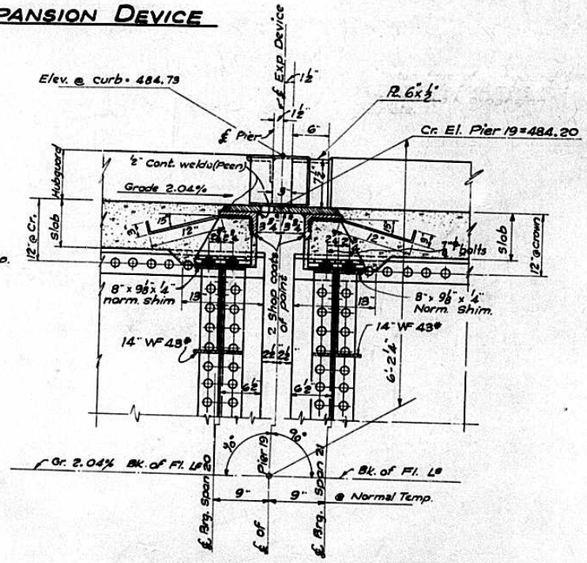
HALF ELEVATION OF EXPANSION DEVICE
REQUIRED - 8 SETS AS SHOWN AND NOTED

HALF PLAN OF EXPANSION DEVICE

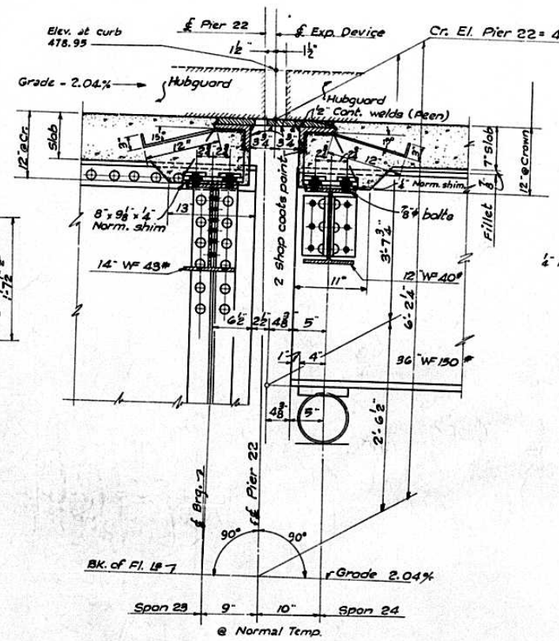


Note: Fabricate sidewalk exp. device level. Rotate about ℄ exp. device. Warp sidewalk surface to meet expansion device.

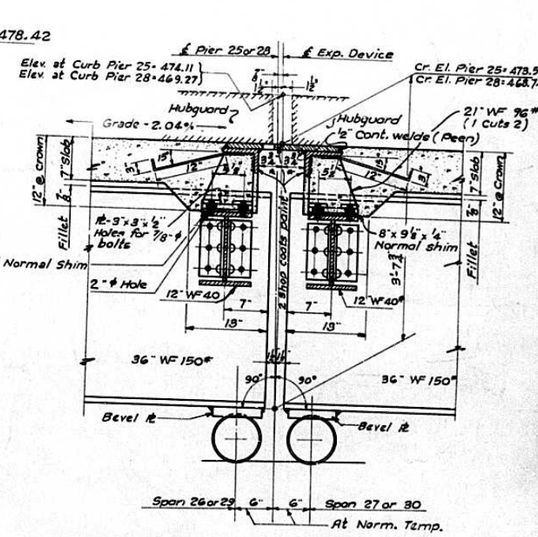
SECTION A-A



CROSS SECTION OF ROADWAY EXPANSION DEVICE - PIER 19



CROSS - SECTION OF ROADWAY EXPANSION DEVICE - PIER 22



CROSS - SECTION OF ROADWAY EXPANSION DEVICE - PIERS 25 & 28

BILL OF MATERIAL
EXPANSION DEVICE AT PIERS 19-22-25 & 28

Sec. 15-E	Structural Steel (Carbon)	Lbs.	21,070
Sec. 15-F	Structural Steel "	Lbs.	21,070
Sec. 15-P	Structural Steel "	Lbs.	21,070

NOTES

Copper bearing steel (A.S.T.M. designation A-7 with 0.2% copper added) shall be used in the following members of expansion devices:
16" x 1¼" Roadway Expansion Plates
6" x ½" Sidewalk Expansion Plates
6" x 4" x ¾" Roadway Angles.
4" x 4" x ½" Sidewalk Angles.

The roadway expansion device shall be in two pieces and shall be fabricated and erected to fit the crown of the roadway.

Roadway and sidewalk expansion devices shall be assembled in the shop in their proper positions with the two adjacent spans in place and shall be left assembled for shop inspection.

Roadway expansion plates shall be flame cut ½" and all turns shall be ⅞" radius.

The exposed surface of underside of roadway and sidewalk expansion plates and the inside vertical surfaces of roadway and sidewalk angles shall be given two shop coats of red lead paint. Other surfaces shall be given one shop coat of red lead paint. Field paint as "Structural Steel."

Expansion devices shall be fabricated with ¼" normal shims between end diaphragms and brackets. These shims shall be made up of 1-⅛" and 2-1/16" shims.

* NOTE TO ERECTOR
Decrease each dimension by ⅛" per 100 ft. of bridge for each 15° rise in temperature above normal temperature of 60°F.
Increase by the same amount for each 15°F drop in temperature below normal temperature of 60°F.

STANDARD	COMPUTED	Rut Hansen	
	CHECKED	H. Mulhern	
	DRAWN	Kost - HENRY O. TEFFT JR.	
	CHECKED	Rmt.	
SPECIAL	ASSEMBLED		
	CHECKED		

EXAMINED 5-5-1941
H. F. Burnett, BRIDGE ENGINEER
PASSED H. E. Sherman, ENGINEER OF DESIGN
APPROVED Ernest Johnson, CHIEF HIGHWAY ENGINEER
APPROVED 2-15-1946
W. W. Bolk, CHIEF HIGHWAY ENGINEER

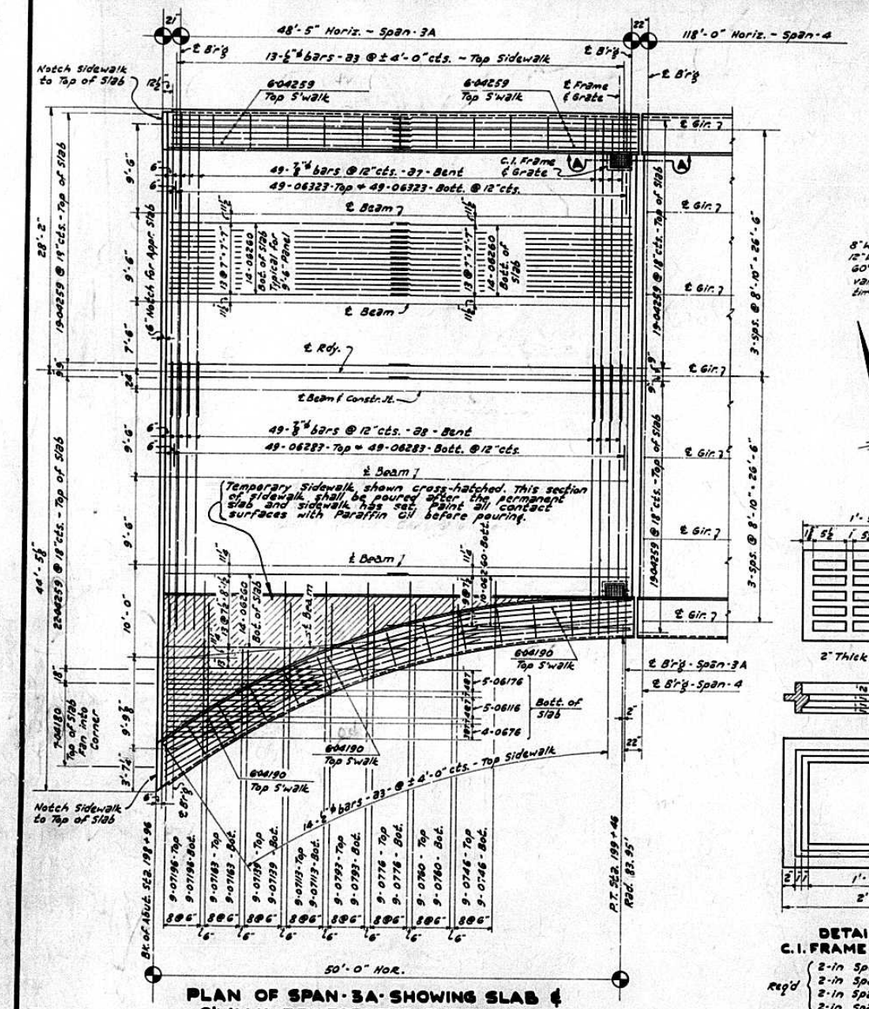
DETAIL OF EXPANSION DEVICES AT PIERS 19 - 22 - 25 AND 28
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F. A. RTE. 172 - SECT. 15 E-F-P-D
PEORIA - TAZEWELL COUNTIES

Rev. - Rdy. Brk. Ft. - 2-16-46 A.L.T. - R.M.M.

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D, E, F	Peoria, Tazewell	44, 94	32, 90
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 609A		

SHEET NO. 59
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F

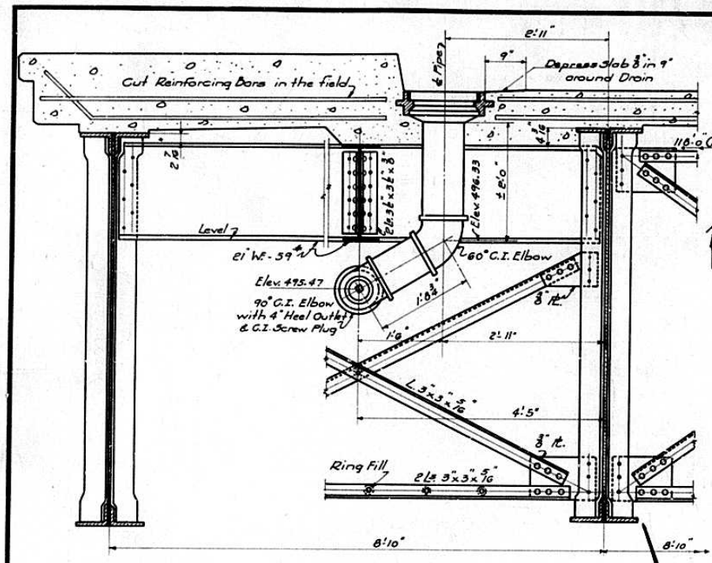


STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

FED. ROAD DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 172	15L	Peoria-Tazewell	18	3
	15P		3	3
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT- U-609(B)		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D E,F	Peoria	44	33
		Tazewell	94	91
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- #609A		

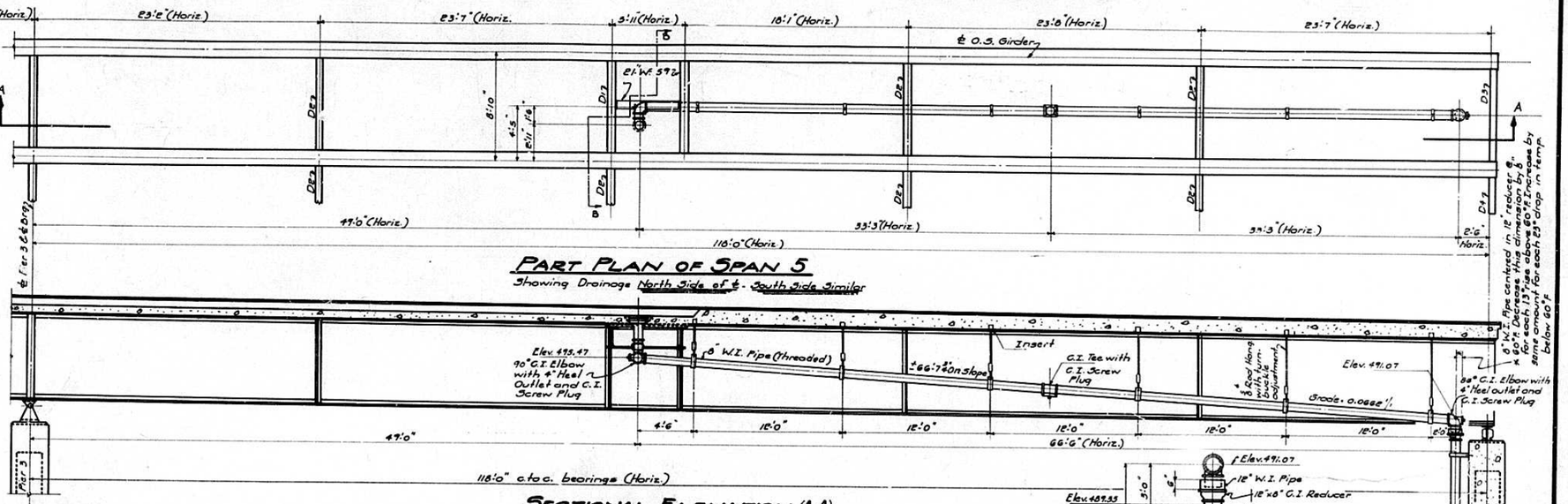
SHEET NO. 60
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F P.L



DRAINAGE DETAILS SPAN 5

Scale: 3/4" = 1'-0"

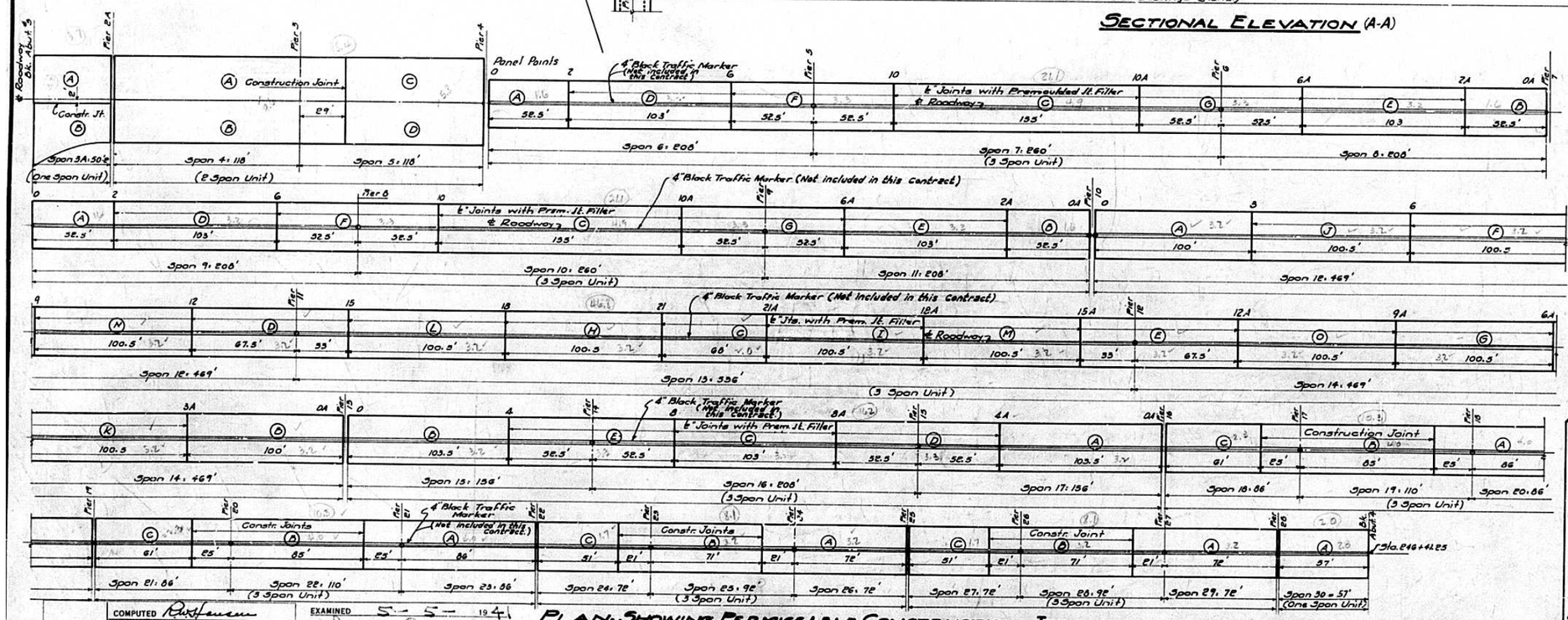
SECTION B-B



PART PLAN OF SPAN 5

Showing Drainage North Side of ℄ - South Side Similar

SECTIONAL ELEVATION (A-A)



PLAN SHOWING PERMISSIBLE CONSTRUCTION JTS. IN SLAB & POURING SEQUENCE

NOTE:
The concrete floor slab shall be poured in one continuous operation between construction joints and 6" joints with prem. joint filler. Pouring shall be done in alphabetical order. If it proves desirable to begin work at the opposite end, of a unit of spans, from that shown on the plans, the order of letters and joints shall be reversed.
No additional joints will be allowed without the written permission of the ENGINEER. The cost of all fittings, wood blocks, hangers, inserts, straps, turnbuckles, bolts, screws, rods, eye bolts, expansion bolts, paint shall be included in the price bid per lineal foot for 8" Wrought Iron Pipe.

STANDARD	COMPUTED	Rud Feuerer
	CHECKED	R.B. Murphy
	DRAWN	R.W.H. M. Miller
	CHECKED	R.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

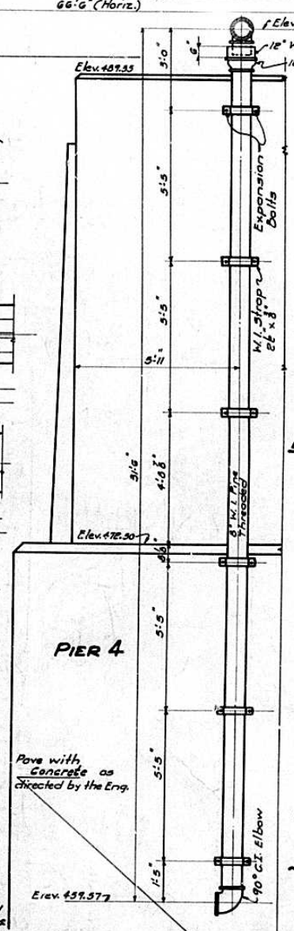
Rev. Conc. Apron - 11/3/47 - J.S.M.

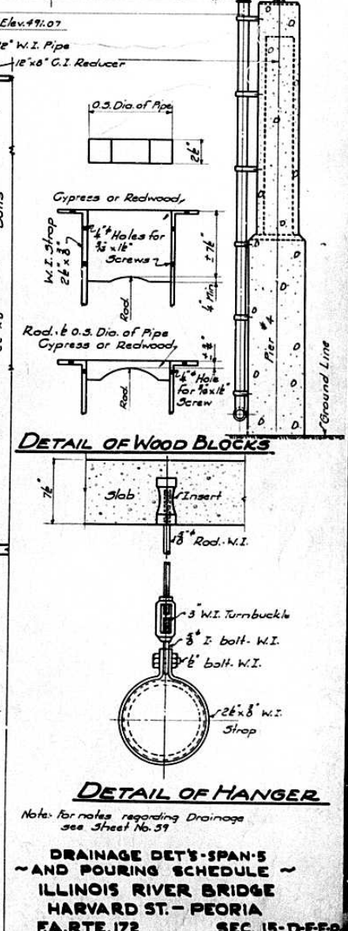
EXAMINED 5-5- 1946
M. T. Russell BRIDGE ENGINEER
PASSED N. D. Sarman ENGINEER OF DESIGN
APPROVED Ernest Tuttle STATE HIGHWAY ENGINEER
APPROVED 5-15-1946
W. W. Bath CHIEF HIGHWAY ENGINEER

BILL OF MATERIAL

Sec. 15-D	8" W.I. Pipe	Lin. Ft.	203.75
	Concrete Apron	Sq. Yds.	5.0
Sec. 15-P	8" W.I. Pipe	Lin. Ft.	203.75

6" Concrete Apron Reinforced with 6"x6" bars in both directions. See Special Provisions.





DETAIL OF WOOD BLOCKS

DETAIL OF HANGER

Note: For notes regarding Drainage see Sheet No. 59

DRAINAGE DET'S - SPAN 5
~ AND POURING SCHEDULE ~
ILLINOIS RIVER BRIDGE
HARVARD ST. - PEORIA
F.A. RTE. 172 SEC. 15-D-E-F-P
PEORIA - TAZEWELL COUNTIES

Sta. on east copper spool - Add median & Black Traffic Marker-Note - J.J. Tuos.

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

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FA 172	15 D	Peoria	44	34
	E,F	Tazewell	94	92
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	609A	

SHEET NO 61
63 SHEETS SEC 15-E
70 " SEC. 15-D-F

HALF PLAN OF SPANS 4 & 5 — SHOWING SLAB & S'WALK REINFORCEMENT — JOINTS & DRAINAGE

HALF SECTION THRU SLAB — SPANS 4 OR 5

SIDEWALK OFFSETS

HALF PLAN OF SPANS-6-7-8-SHOWING SLAB AND SIDEWALK REINFORCEMENT — J'TS & DRAINAGE

Reinforcement, Joints and Drainage for Spans-9-10 & 11 are similar to Spans-6-7 & 8 except Panel adjacent to Span-12 See Sheet No. 62 For General Notes.

HALF SEC. THRU SLAB — SPANS 6 TO 17 INCL.

STANDARD	COMPUTED	Rev Hamm
	CHECKED	P. Michener
	DRAWN	Rev H - J. Malecki
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5- 1941
M. T. Burch BRIDGE ENGINEER
PASSED H. E. Burman ENGINEER OF DESIGN
APPROVED Ernest Fickelscherer STATE HIGHWAY ENGINEER
APPROVED 2-15-1946
W. W. Peck CHIEF HIGHWAY ENGINEER

DETAIL OF JOINT WITH PREM. JT FILLER

DETAIL OF DUMMY JOINT IN FLOOR SLAB

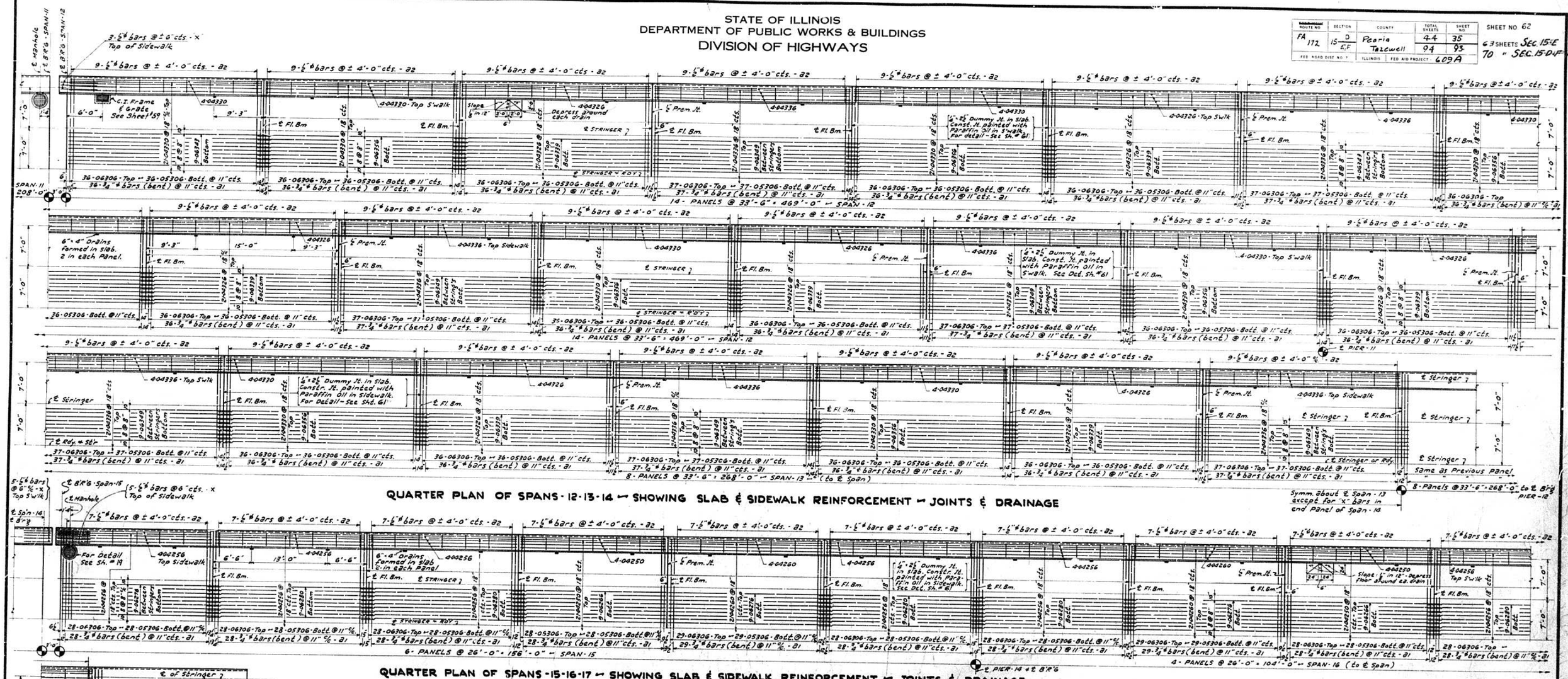
SLAB REINFORCEMENT
SPANS-4 & 5 · SPANS-6-7-8 · SPANS-9-10-11
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. RTE. 172 SEC. 15-D-F-E-
PEORIA - TAZEWELL COUNTIES

Rev 4/12/42 Med. Curb - Copper Seals out. R&M.
" 3/11/46 G.R.J.

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

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FA 172	15-D E.F	Peoria	44	35
		Tazewell	94	93
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 609A		

SHEET NO 62
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F-E-PL



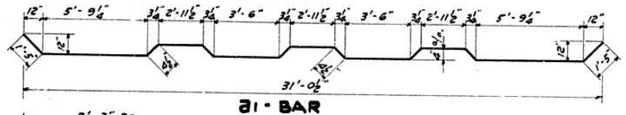
QUARTER PLAN OF SPANS - 12-13-14 ↔ SHOWING SLAB & SIDEWALK REINFORCEMENT ↔ JOINTS & DRAINAGE

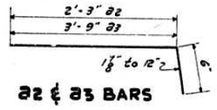
QUARTER PLAN OF SPANS - 15-16-17 ↔ SHOWING SLAB & SIDEWALK REINFORCEMENT ↔ JOINTS & DRAINAGE

BILL OF MATERIAL ↔ SPANS 4 TO 17 INCL.

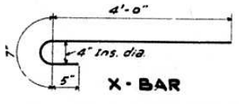
MARK	No.	SIZE	LENGTH	MARK	No.	SIZE	LENGTH	
06303	1028	¾"ϕ	30'-3"	0449	24	½"ϕ	4'-9"	STRAIGHT BARS
06286	594	¾"ϕ	28'-6"	0476	26	½"ϕ	7'-6"	
06383	74	¾"ϕ	38'-3"	0499	24	½"ϕ	9'-9"	
04279	342	¾"ϕ	27'-9"	04113	26	½"ϕ	11'-3"	
06306	3630	¾"ϕ	30'-6"	04123	50	½"ϕ	12'-3"	
05306	3630	¾"ϕ	30'-6"	06339	504	¾"ϕ	33'-9"	
06280	1260	¾"ϕ	28'-0"	06343	72	¾"ϕ	34'-3"	
06276	648	¾"ϕ	27'-6"	06349	504	¾"ϕ	34'-9"	
06269	108	¾"ϕ	26'-9"	06356	504	¾"ϕ	35'-6"	
06266	576	¾"ϕ	26'-6"	04326	406	½"ϕ	32'-6"	
0430	12	½"ϕ	3'-0"	04330	464	½"ϕ	33'-0"	
04250	546	½"ϕ	25'-0"	04336	406	½"ϕ	33'-6"	
04256	1131	½"ϕ	25'-6"					
04260	512	½"ϕ	26'-0"					
04269	28	½"ϕ	26'-9"					
04176	24	½"ϕ	17'-6"					
0420	8	½"ϕ	2'-0"					
a	514	¾"ϕ	31'-9"	a4	7174	½"ϕ	1'-3"	BENT BARS
a1	3630	¾"ϕ	32'-6"	X	42	½"ϕ	5'-0"	
a2	1800	½"ϕ	2'-9"					
a3	236	½"ϕ	4'-3"					
Class "X" Concrete				Cu. Yds.			2926.8	
Reinforcement Bars				Lbs.			832,970	











GENERAL NOTES

Class "X" concrete shall be used throughout.
Concrete floor slab shall be finished in accordance with Article 61.3 (a) of the Standard Specifications.
Hubguard of Sidewalks shall be finished with an edging tool.
Premoulded Joint Filler shall conform to Articles 115.67 or 115.68 incl. of the Standard Specifications.

STANDARD	COMPUTED	R.H. Hansen
	CHECKED	P. Mickelsen
	DRAWN	R.H. J. Malek
	CHECKED	P.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 5-5-1941
M. T. Purnell
BRIDGE ENGINEER
PASSED H. C. Burman
ENGINEER OF DESIGN
APPROVED Ernest Lieberman
CHIEF HIGHWAY ENGINEER
APPROVED 2-15-1946
W. W. Bach
CHIEF HIGHWAY ENGINEER

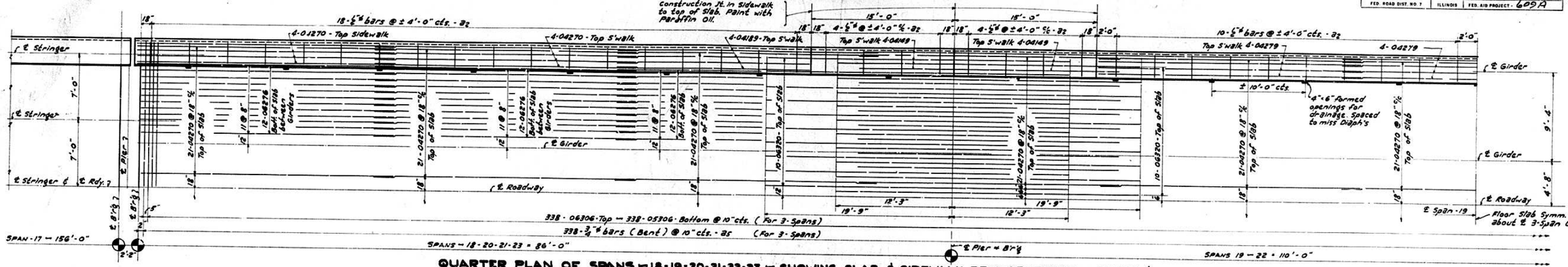
Rev. 4/2/42 Mod. Curb. Quant. RMM.
2/7/46 G.R.J.

SLAB REINFORCEMENT
SPANS - 12-13-14 & SPANS - 15-16-17
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. RTE. 172 SEC. 15-D-F-E-PL
PEORIA - TAZEWELL COUNTIES

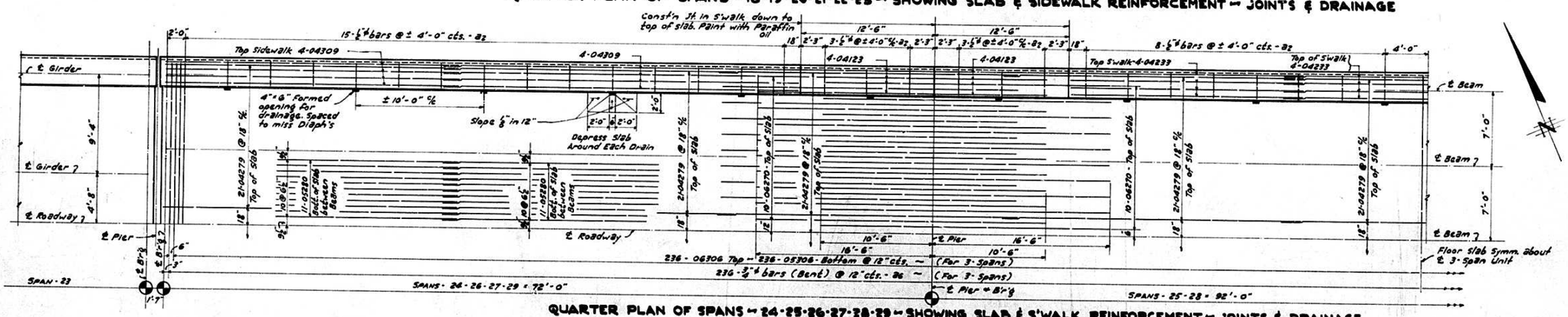
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15 D E,F	Peoria Tazewell	44 94	36 94
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 609A		

SHEET NO. 63
63 SHEETS SEC. 15-E
70 " SEC. 15-D-F



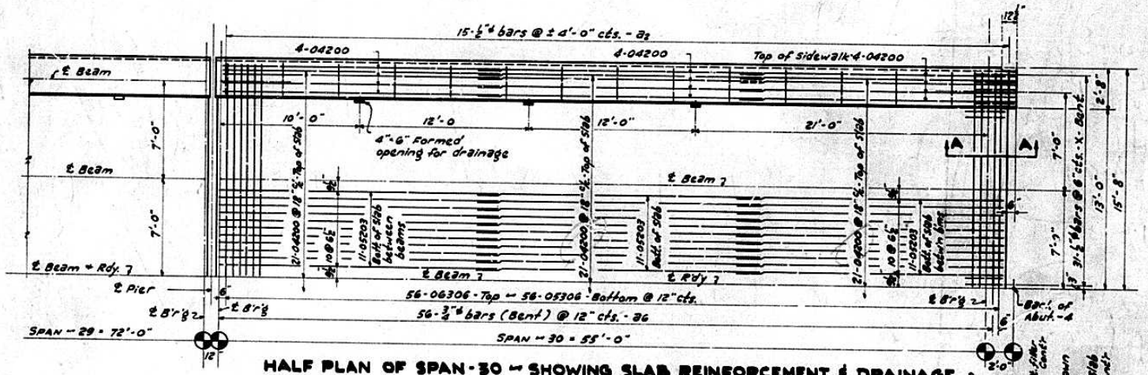
QUARTER PLAN OF SPANS — 18 - 19 - 20 - 21 - 22 - 23 — SHOWING SLAB & SIDEWALK REINFORCEMENT — JOINTS & DRAINAGE



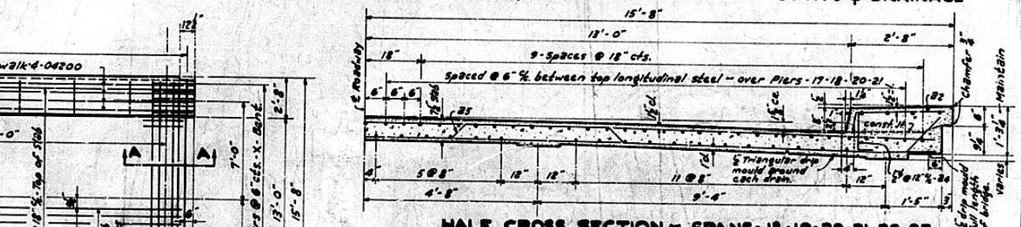
QUARTER PLAN OF SPANS — 24 - 25 - 26 - 27 - 28 - 29 — SHOWING SLAB & S'WALK REINFORCEMENT — JOINTS & DRAINAGE

BILL OF MATERIAL
SPANS - 18 TO 30 INCL.

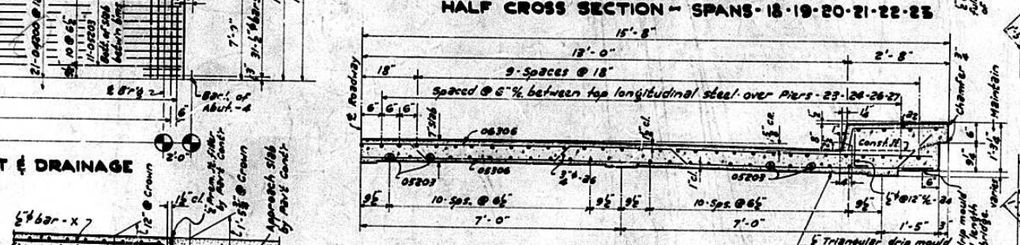
STRAIGHT BARS			
MARK	No.	SIZE	LENGTH
06306	1204	¾"ϕ	30'-6"
05306	1204	⅝"ϕ	30'-6"
4270	526	½"ϕ	27'-0"
4189	32	½"ϕ	18'-9"
4149	64	½"ϕ	14'-9"
4279	426	½"ϕ	27'-9"
06276	792	¾"ϕ	27'-6"
06320	160	¾"ϕ	32'-0"
4309	64	½"ϕ	30'-9"
4123	64	½"ϕ	12'-3"
4233	48	½"ϕ	23'-3"
06270	160	¾"ϕ	27'-0"
05280	792	⅝"ϕ	28'-0"
05203	132	⅝"ϕ	20'-3"
4200	87	½"ϕ	20'-0"
BENT BARS			
a2	550	½"ϕ	2'-9"
a4	2194	½"ϕ	1'-3"
a5	676	¾"ϕ	32'-3"
a6	528	¾"ϕ	32'-3"
x	62	½"ϕ	5'-0"
Class "X" Concrete		Cu. Yds.	925.8
Reinforcement Bars		Lbs.	201,750



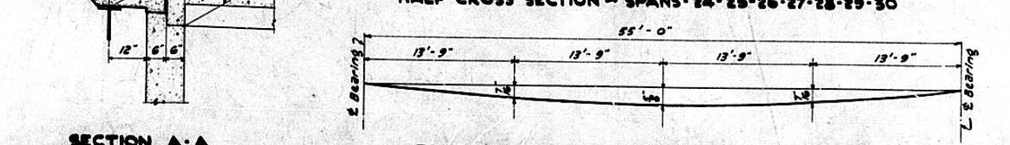
HALF PLAN OF SPAN - 30 — SHOWING SLAB REINFORCEMENT & DRAINAGE



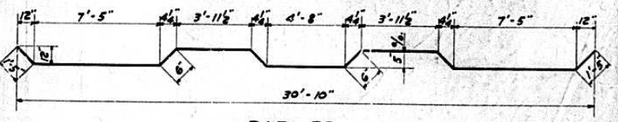
HALF CROSS SECTION — SPANS - 18 - 19 - 20 - 21 - 22 - 23



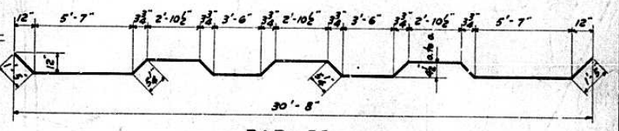
HALF CROSS SECTION — SPANS - 24 - 25 - 26 - 27 - 28 - 29 - 30



DEAD LOAD DEFLECTION DIAGRAM — SPAN - 30



BAR - a5

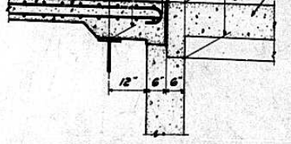


BAR - a6

NOTE — See Sheet No. 62 For Detail of Bars - a2 - a4 - x & "General Notes"

STANDARD	COMPUTED	Rod Hanson	
	CHECKED	P. Michener	
	DRAWN	Wm. A. O'Malley	
	CHECKED	P. M.	
SPECIAL	ASSEMBLED		
	CHECKED		

EXAMINED 5-5-1941
M. F. Burnett
BRIDGE ENGINEER
PASSED H. C. Surman
ENGINEER OF DESIGN
APPROVED Ernest Lieberman
CHIEF HIGHWAY ENGINEER
APPROVED 5-15-1946
W. W. Polk
CHIEF HIGHWAY ENGINEER



SECTION A-A

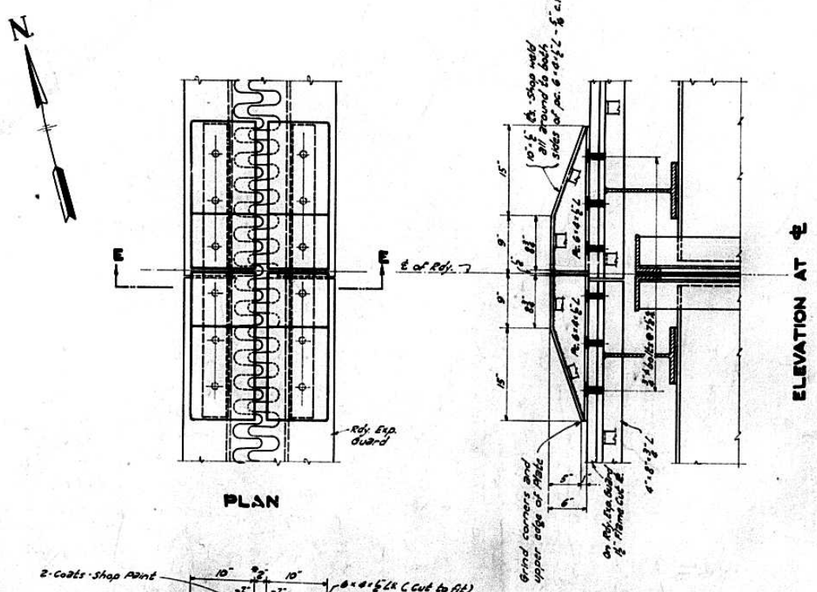
— SLAB REINFORCEMENT —
SPANS — 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. RTE. 172 SEC. 15-D-F-E
PEORIA — TAZEWELL COUNTIES

2/7/47 A.E.J. a3 bars changed to a2 12/15/47

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

F.A. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15-D	Peoria	44	37
	15-E,F	Tazewell	94	94A
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -	609A	

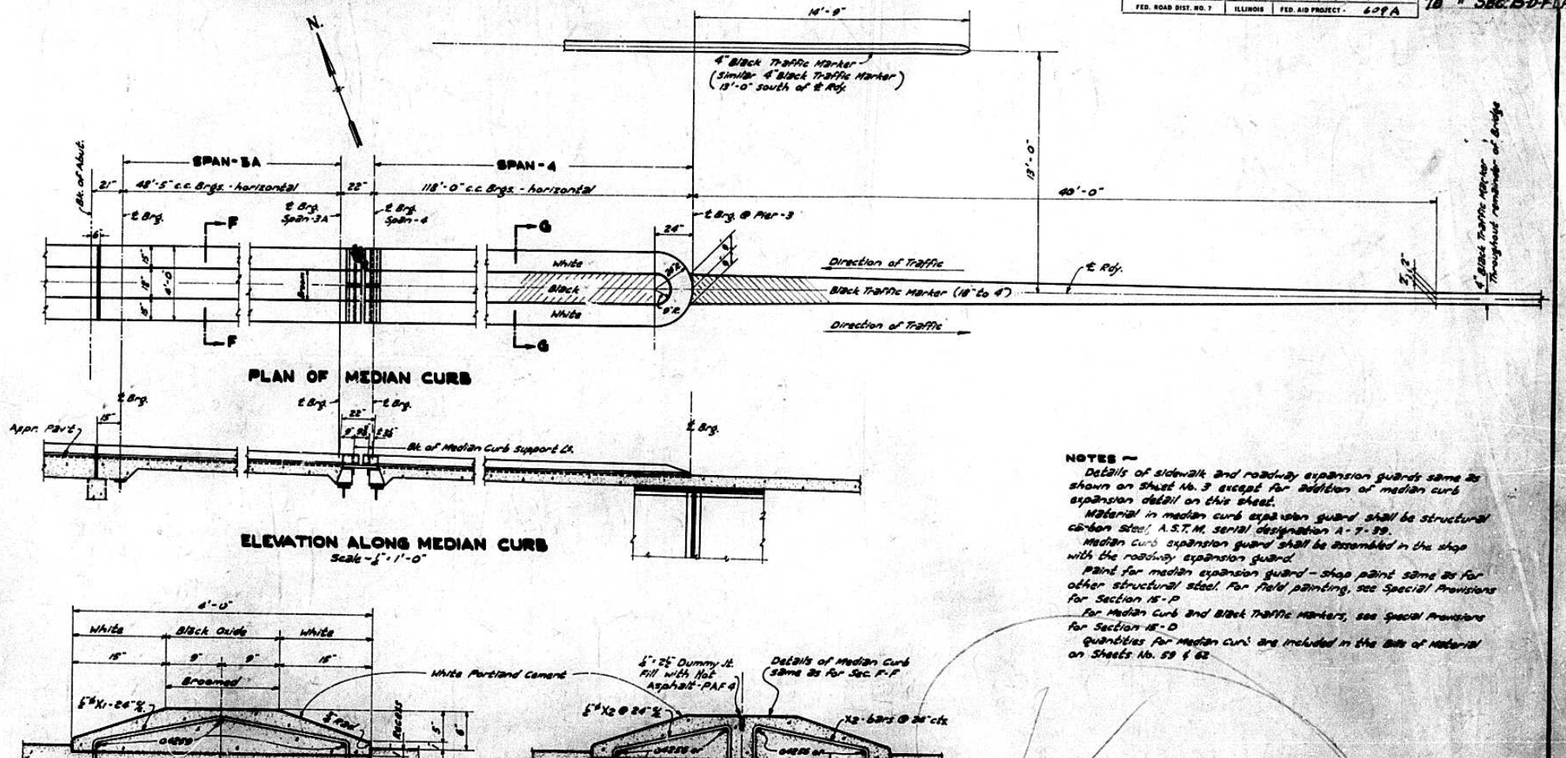
SHEET NO. 63A OF 63 SHEETS Sec. 15E
70 " Sec. 15D-F&L

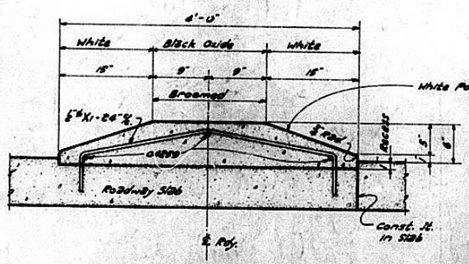


SECTION E-E

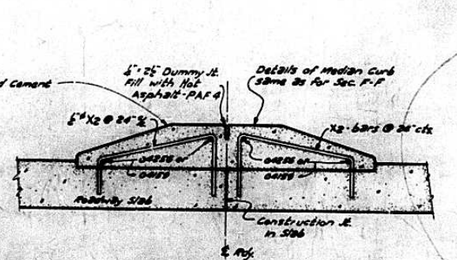
* NOTE – Decrease ½" for each 10° hotter than 60°F. Increase each dimension ½" for each 10° colder than 60°F.

DETAIL – MEDIAN CURB EXPANSION GUARD AT PIER 2A
Scale – 1" = 1'-0"





SECTION F-F
SHOWING MEDIAN CURB ON SPAN 5A
Scale – 1" = 1'-0"



SECTION G-G
SHOWING MEDIAN CURB ON SPAN-4
Scale – 1" = 1'-0"

NOTES –

Details of sidewalk and roadway expansion guards same as shown on Sheet No. 3 except for addition of median curb expansion detail on this sheet.

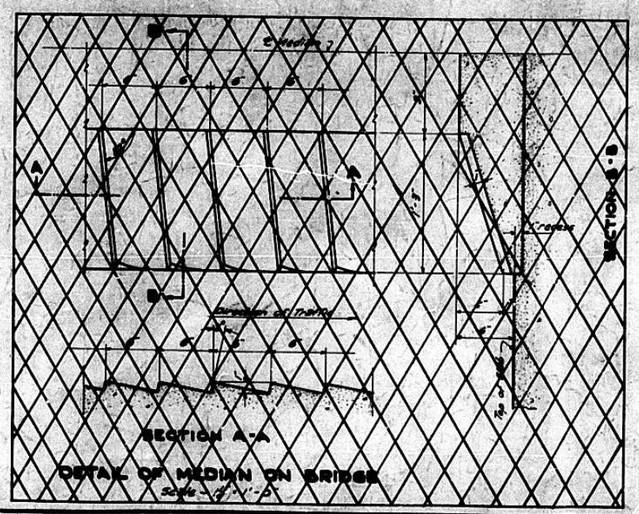
Material in median curb expansion guard shall be structural carbon steel, A.S.T.M. serial designation A-7-39.

Median curb expansion guard shall be assembled in the shop with the roadway expansion guard.

Paint for median expansion guard – shop paint same as for other structural steel. For field painting, see Special Provisions for Section 15-F.

For Median Curb and Black Traffic Markers, see Special Provisions for Section 15-D.

Quantities for median curb are included in the bill of material on Sheets No. 59 & 62.



Void

This sheet Void
6/47

STANDARD	COMPUTED	R.B.M. Murphy
	CHECKED	
	DRAWN	R.B.M. J. Malaki
	CHECKED	A.L.T. R.W.H.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 3-15-1946
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED W. W. Pooh
CHIEF HIGHWAY ENGINEER

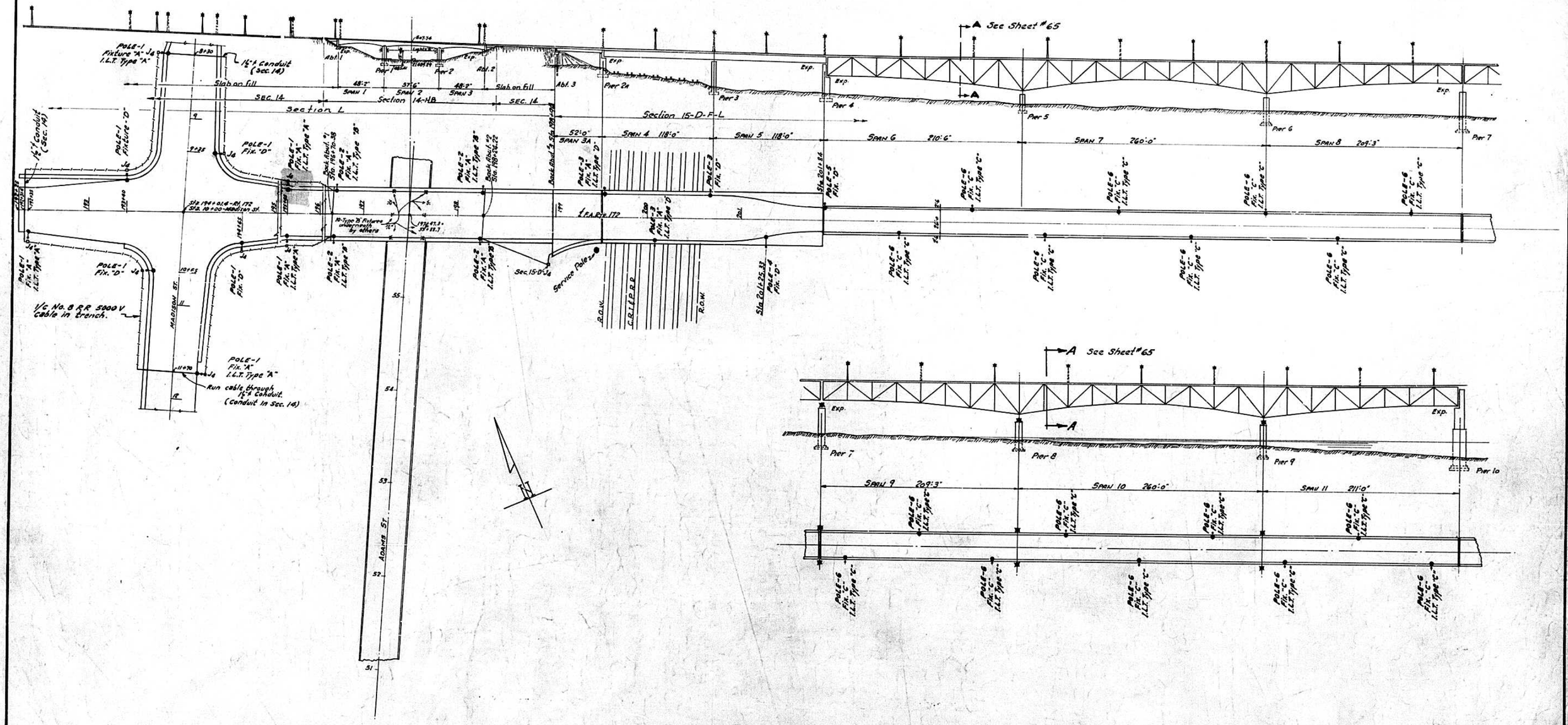
DETAILS – MEDIAN CURB
ILLINOIS RIVER BRIDGE
HARVARD ST. PEORIA
F.A. RTE. 172 SEC. 15 E-F-D
PEORIA – TAZEWELL COUNTIES

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

ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15L	Peoria-Tazewell	16	4
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-1409(8)		

ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15D	Peoria-Tazewell	44	38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 64
70 SHEETS



COMPUTED	R.W.Hammel
CHECKED	A.L.Thomas
DRAWN	R.W.H.
CHECKED	A.L.T.
ASSEMBLED	
CHECKED	

EXAMINED 8-8-1947
PASSED
APPROVED W.W. Pash
CHIEF HIGHWAY ENGINEER

Rev. Poles-Light Fixtures & N. Appr. R.W.H. 2/49

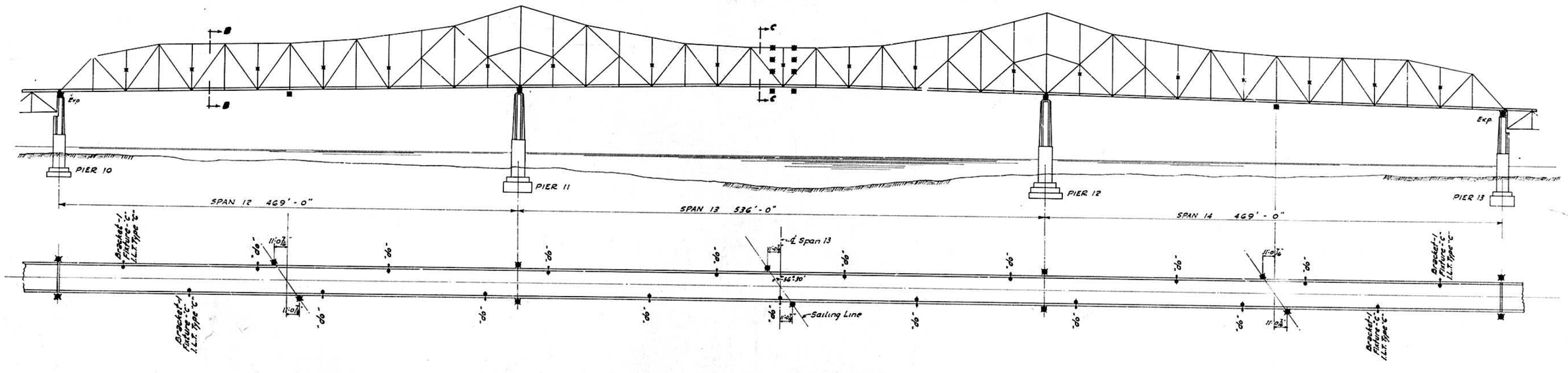
LIGHTING SYSTEM
ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F.A. ROUTE 172 SECT. 15D-F-L
PEORIA-TAZEWELL COUNTIES

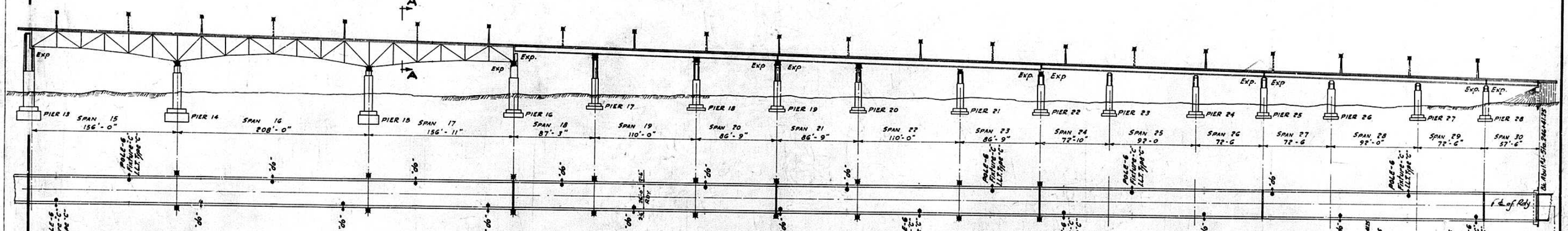
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

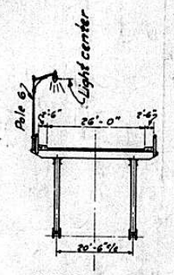
GOOD ROAD DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 172	15L	Peoria - Tazewell	15	5
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-U-608(B)		

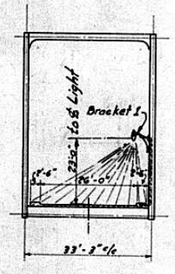
ORIGINATING ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15-D	Peoria - Tazewell	4	39
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

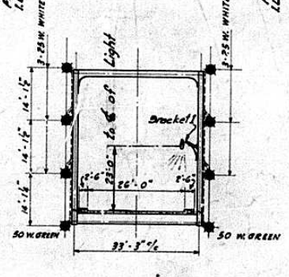
SHEET NO. 65
70 SHEETS











COMPUTED	A.L. Thomas
CHECKED	R.M. Hammel
DRAWN	A.L.T.
CHECKED	R.M.H.
ASSEMBLED	
CHECKED	

EXAMINED 8-8- 1941
L. K. Church BRIDGE ENGINEER
PASSED H. E. Simmons ENGINEER OF DESIGN
APPROVED W. W. Cook CHIEF HIGHWAY ENGINEER

~~Light Fixtures for Poles etc~~ Rev. Poles-Light Fixtures & E. Appr. P.W.H. 2/46

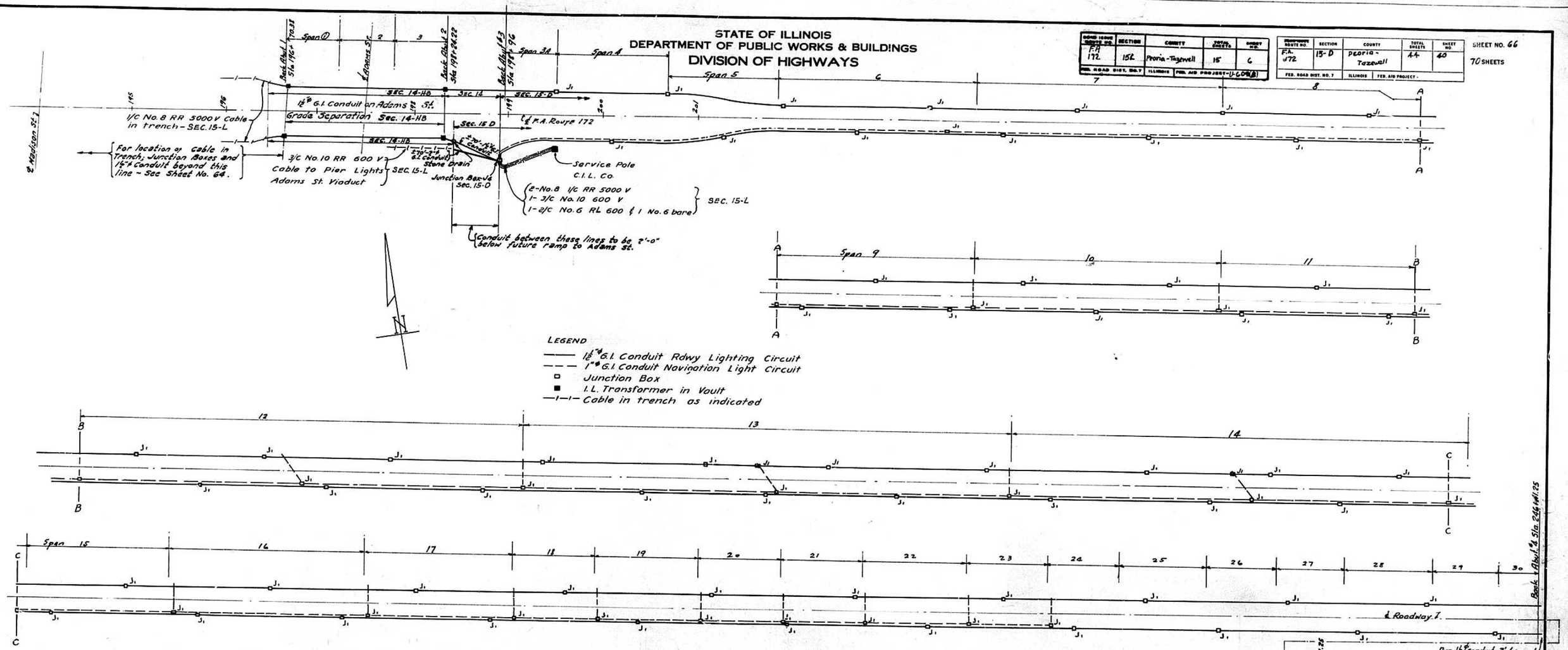
LIGHTING SYSTEM
ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F. A. ROUTE 172 SECT. 15D-F-L
PEORIA-TAZEWELL COUNTIES

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

ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15D	Peoria-Tazewell	15	6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-U-LOCAL(8)		

HIGHWAY ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15-D	Peoria-Tazewell	44	40
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 66
70 SHEETS



LEGEND
- 1½" G.I. Conduit Rdwy Lighting Circuit
- 1" G.I. Conduit Navigation Light Circuit
- Junction Box
- I.L. Transformer in Vault
- Cable in trench as indicated

COMPUTED	R.W. Hammel
CHECKED	A.L. Thomas
DRAWN	R.W.H. & J. Nixon
CHECKED	A.L.T.
ASSEMBLED	
CHECKED	

EXAMINER 8-8-1947
M. K. Burch
BRIDGE ENGINEER
PASSED H. E. Simmons
ENGINEER OF DESIGN
APPROVED W. C. Bell
CHIEF HIGHWAY ENGINEER

Rev. E. Appr. - R.W.H. 2/48

LIGHTING SYSTEM - CONDUIT LAYOUT
ILLINOIS RIVER BRIDGE
HARVARD STREET - PEORIA
F.A. ROUTE 172 SEC 15 D-F-L
PEORIA - TAZEWELL COUNTIES

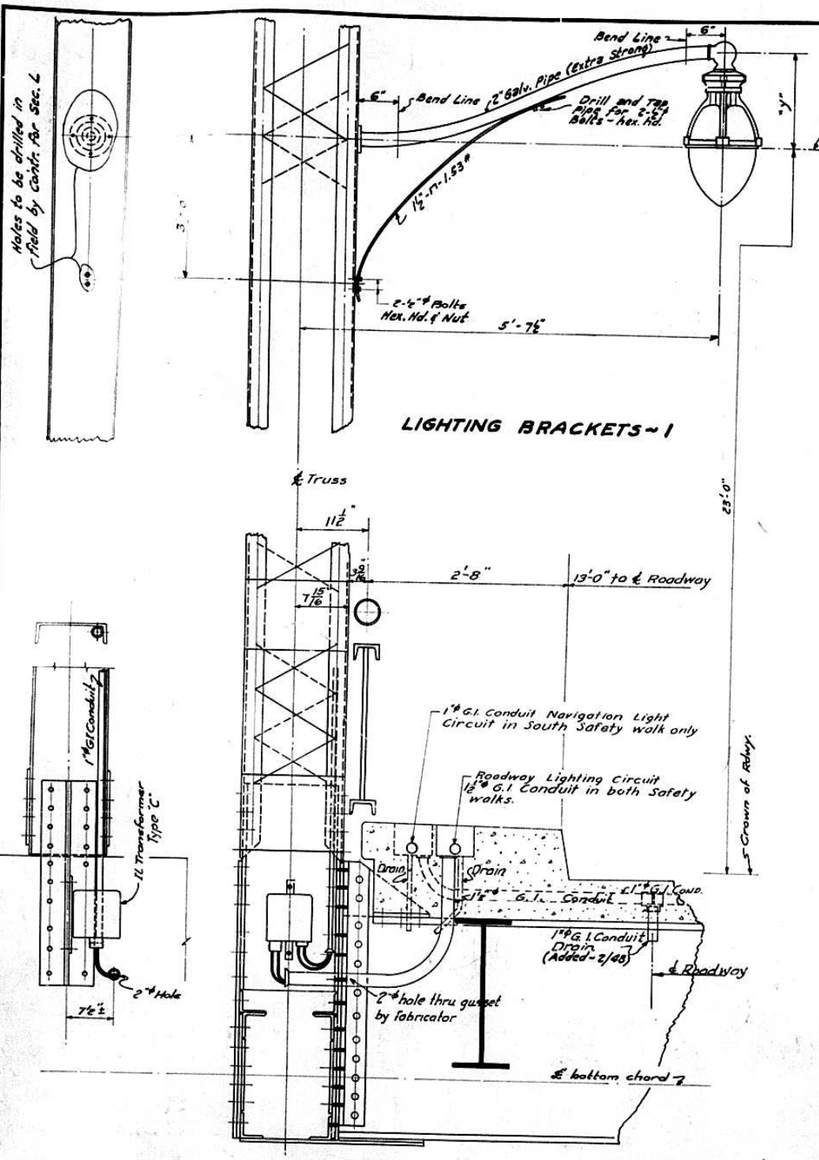
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	16L	Peoria-Tazewell	15	7
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-U-(20)(8)		

SUBMITTED ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15-D	Peoria-Tazewell	44	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

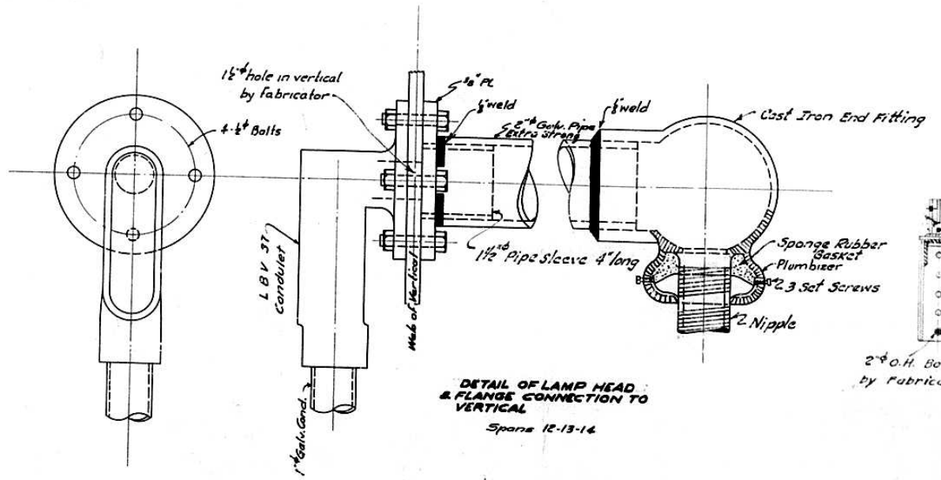
SHEET NO. 41
70 SHEETS

LIGHTING BRACKETS - 1

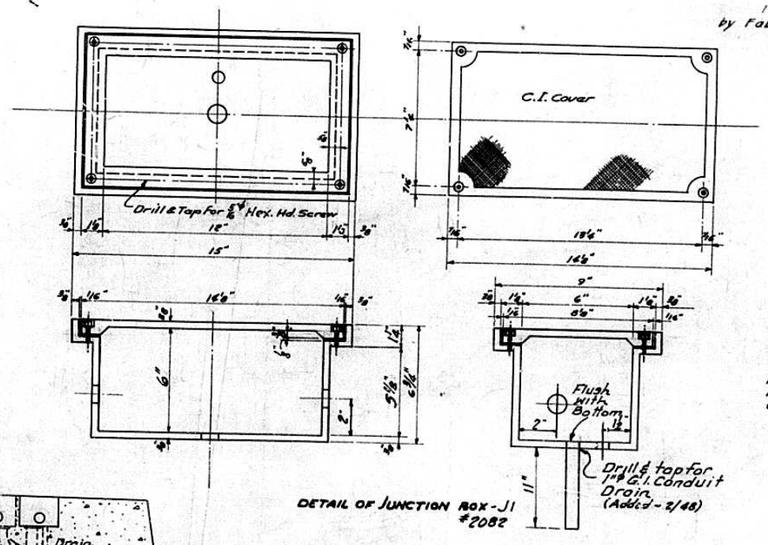


Note - Dimension "y" shall be constant on all Brackets

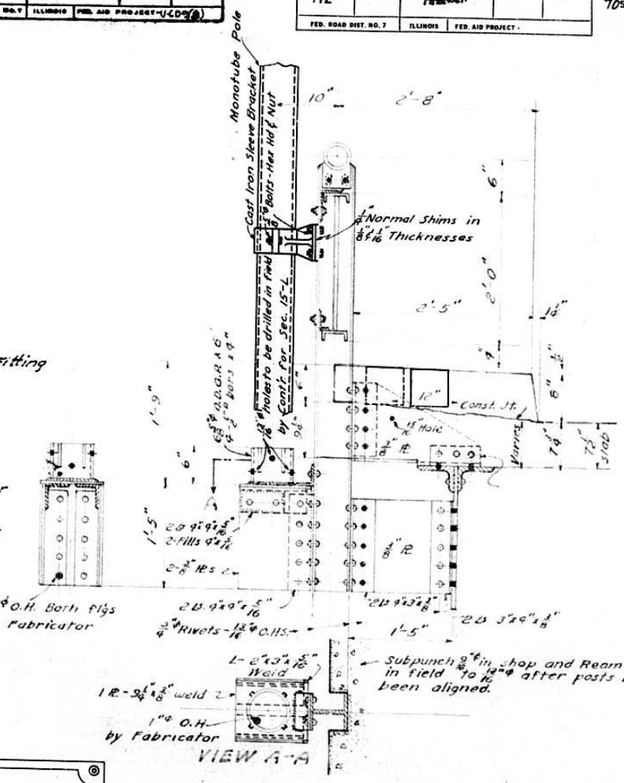
Details - Through Spans 12-13-14



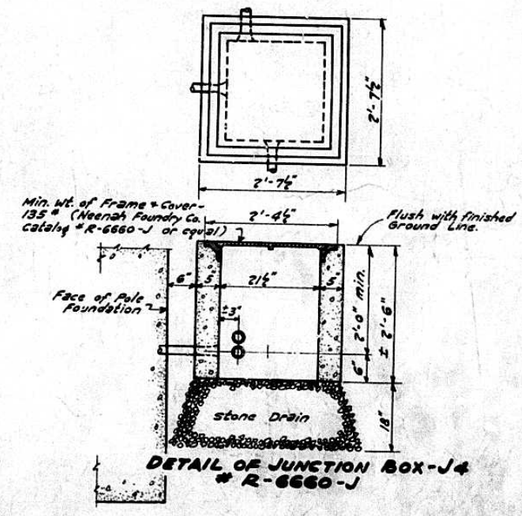
DETAIL OF LAMP HEAD & FLANGE CONNECTION TO VERTICAL
Spans 12-13-14



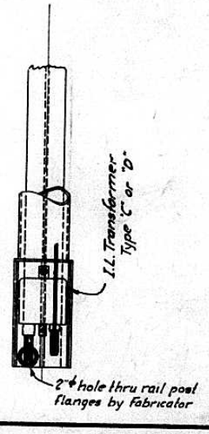
DETAIL OF JUNCTION BOX - J1
#2082

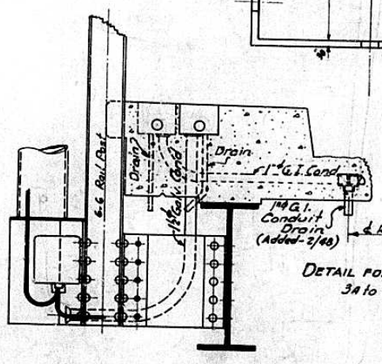


LIGHT POLE SUPPORT
FOR POLES - 3-4-5 & 6



DETAIL OF JUNCTION BOX - J4
R-6660-J





DETAIL FOR ALL DECK SPANS
3A to 11 & 15 to 30

COMPUTED	R.D.Hammel	EXAMINED 8-8-1947
CHECKED	A.L.Thomas	
DRAWN	R.D.W.	PASSED
CHECKED	A.L.T.	
ASSEMBLED		APPROVED
CHECKED		

Red Light Fix. - Brackets & Junction Box J4 - R.W.H. 2/48

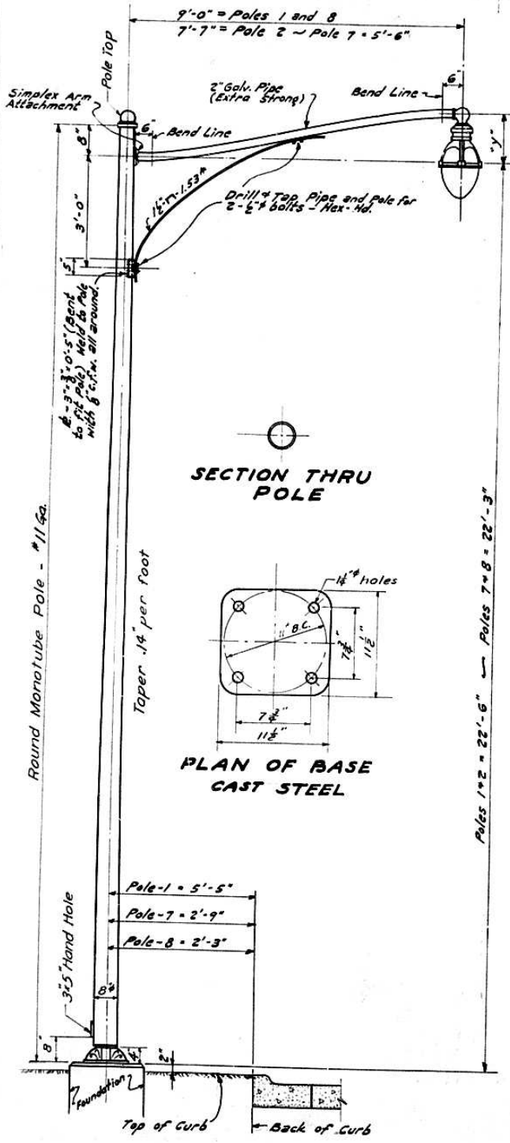
LIGHTING SYSTEM
ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F.A. ROUTE 172 SEC. 16 D-F-L
PEORIA - TAZEWELL CO'S.

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

BOARD ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15D	Peoria-Tazewell	15	8
ROAD DIST. NO. 7	ILLINOIS	PED. AID PROJECT-4-609(8)		

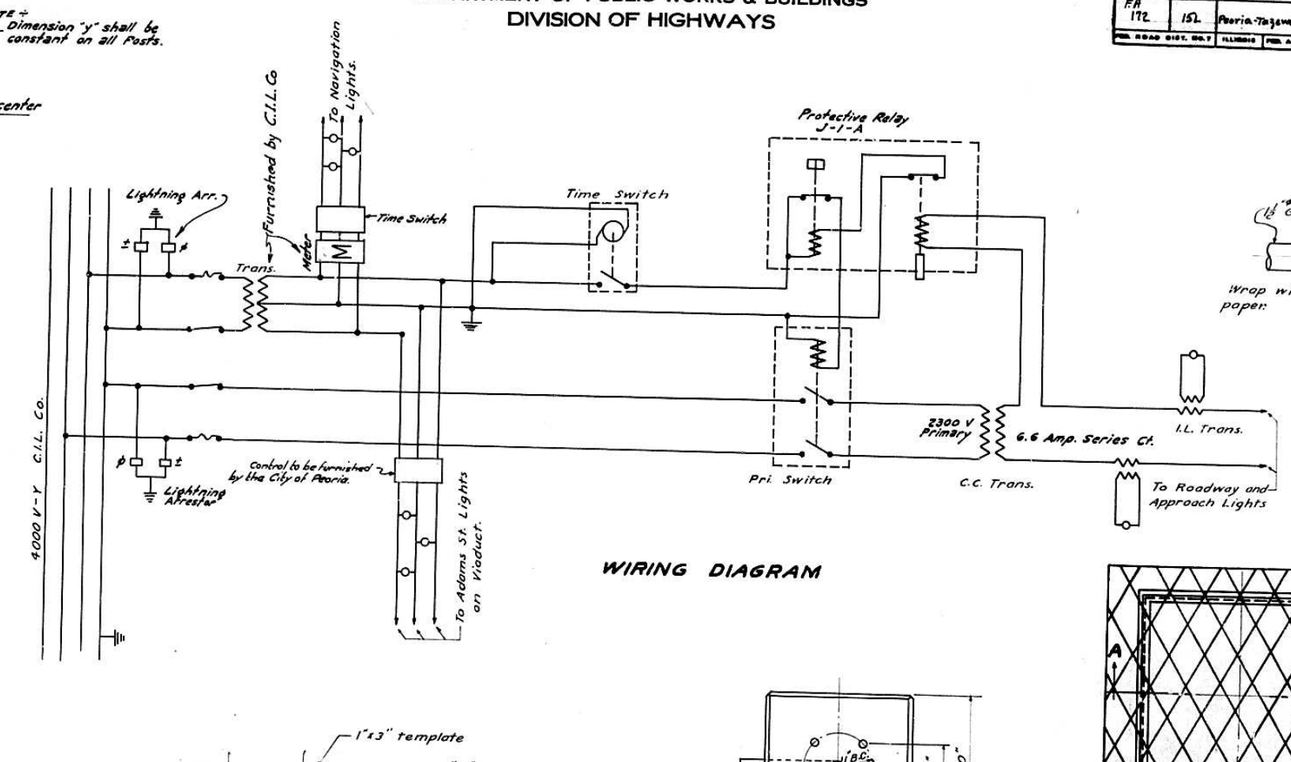
DESIGNATION ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15-D	Peoria-Tazewell	44	42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 68
70 SHEETS

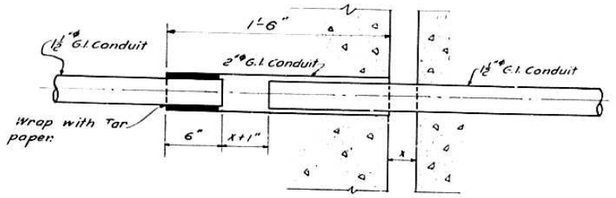


DETAIL OF LIGHT POLES
1-2-7 & 8

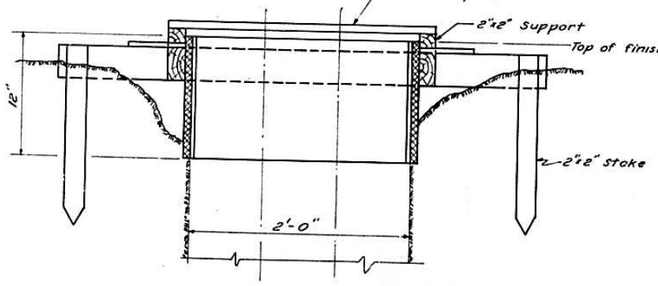
PLAN OF BASE
CAST STEEL



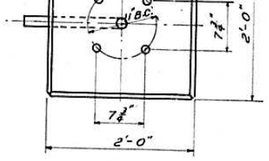
WIRING DIAGRAM



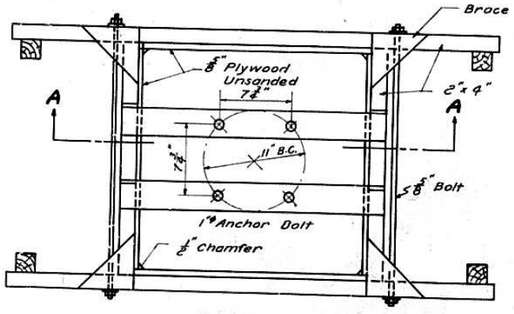
DETAIL OF EXPANSION DEVICE



SECTION A-A

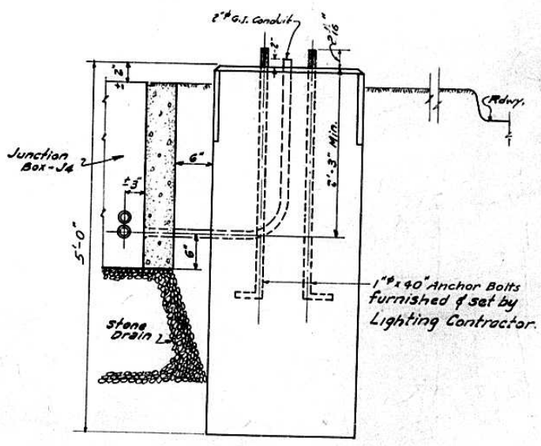


PLAN



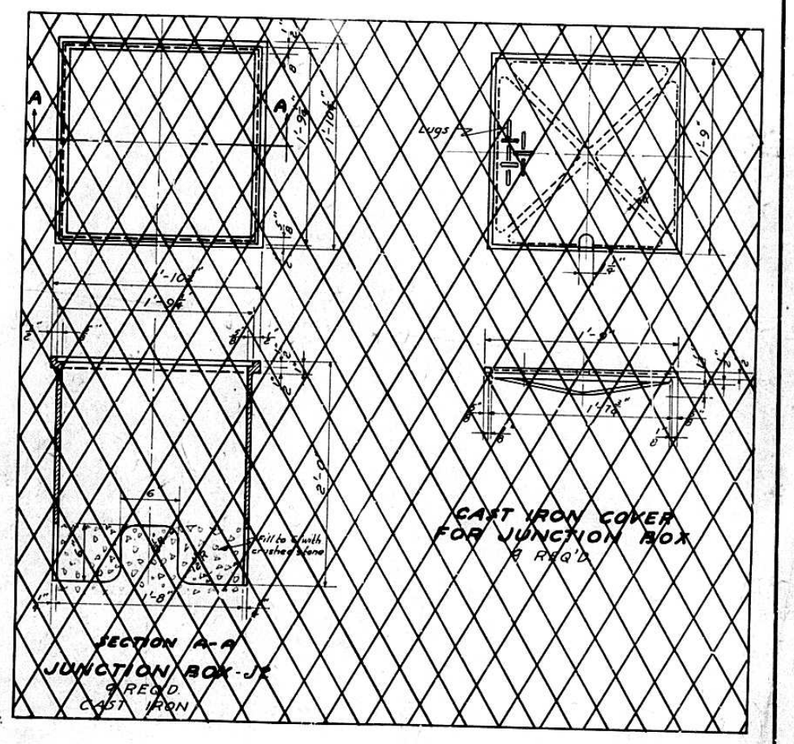
PLAN

DETAIL OF FORM
FOR
FOUNDATION



ELEVATION

DETAIL OF FOUNDATION



CAST IRON COVER
FOR JUNCTION BOX
J REQ'D.

SECTION A-A
JUNCTION BOX-J2
2 REQ'D.
CAST IRON

COMPUTED	Robt Hummel
CHECKED	A.L. Thomas
DRAWN	Robt. de Vicioni
CHECKED	A.L.T.
ASSEMBLED	
CHECKED	

EXAMINED 8-5- 1947
H. K. Bundy BRIDGE ENGINEER
PASSED W. A. Summerville ENGINEER OF DESIGN
APPROVED W. W. Pugh CHIEF HIGHWAY ENGINEER

Rev. Pole-Light Fixture - R.W.H. 2/48

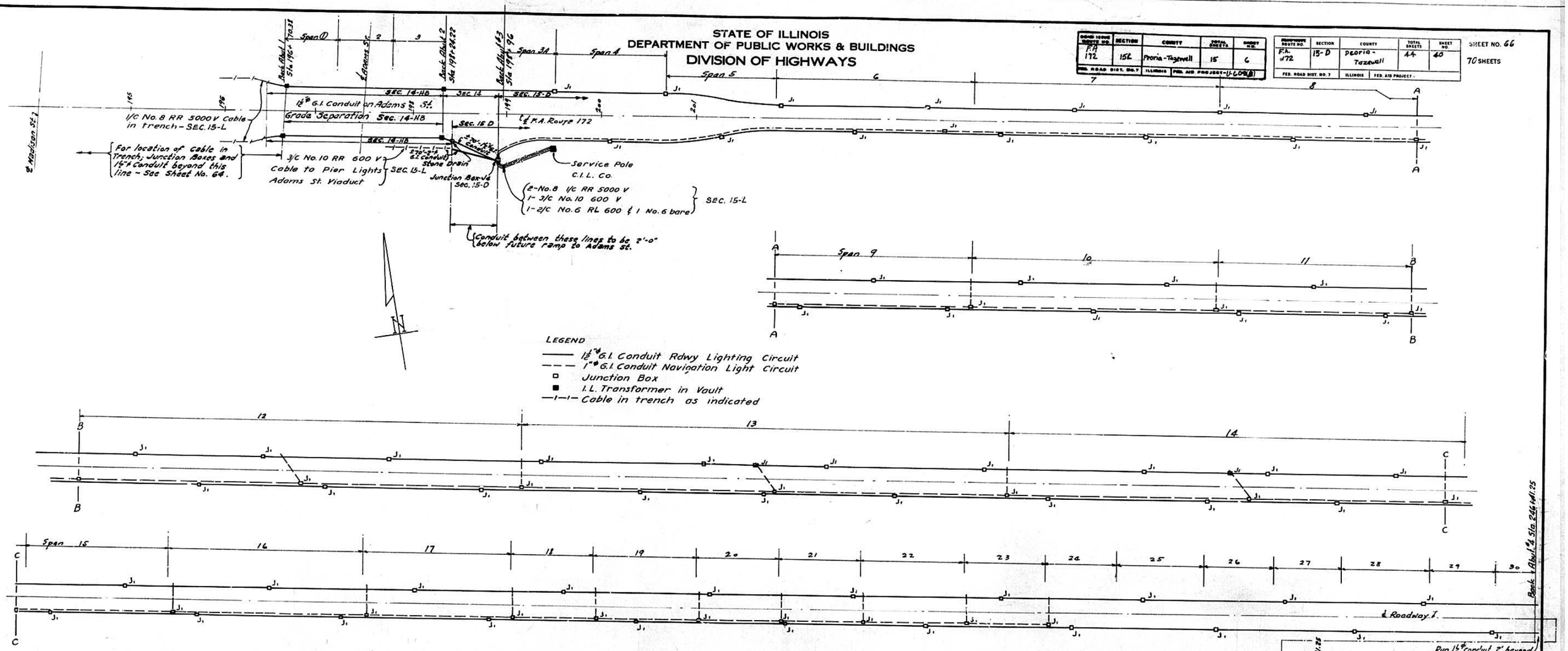
LIGHTING SYSTEM
ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F.A. ROUTE 172 SEC. 15 D-F-L
PEORIA-TAZEWELL CO'S.

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

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15L	Peoria-Tazewell	15	6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-U-609(B)		

BRIDGE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. #172	15-D	Peoria-Tazewell	44	40
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 66
70 SHEETS



COMPUTED	R.W. Hammel
CHECKED	A.L. Thomas
DRAWN	R.W.H. & d'Vision
CHECKED	A.L.T.
ASSEMBLED	
CHECKED	

EXAMINER 8-8-1947
M.J. Burch BRIDGE ENGINEER
PASSED H.E. Symmes ENGINEER OF DESIGN
APPROVED W.M. Peel CHIEF HIGHWAY ENGINEER

Rev. E. Appr. - R.W.H. 2/48

LIGHTING SYSTEM - CONDUIT LAYOUT
ILLINOIS RIVER BRIDGE
HARVARD STREET - PEORIA
F.A. ROUTE 172 SEC 15 D-F-L
PEORIA-TAZEWELL COUNTIES

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

GOOD ROADS ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15L	Peoria-Tazewell	15	7
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-U-609(8)		

GOOD ROADS ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15-D	Peoria-Tazewell	44	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 67
70 SHEETS

Holes to be drilled in field by Contr. for Sec. L

Bend Line — 6"
6" Bend Line — 2" Galv. Pipe (Extra strong)
Drill and Tap Plate for 2-⅞" Bolts - Hex. Hd.
1½"-11.53#
Light center
"y"
Note - Dimension "y" shall be constant on all Brackets
3'-0"
2-⅞" ϕ Bolts Hex. Hd. & Nut
5'-7½"

LIGHTING BRACKETS - 1

℄ Truss
11½"
2'-8"
13'-0" to ℄ Roadway
25'-0"
℄ Crown of Rdwy.
1" G.I. Conduit Navigation Light Circuit in South Safety walk only
Roadway Lighting Circuit 1½" G.I. Conduit in both Safety walks.
1" G.I. Conduit
Ll. Transformer Type "C"
2-¾" Hole
7½"
Drain
1½" G.I. Conduit
1" G.I. Conduit Drain (Added - 2/48)
℄ Roadway
2-¾" hole thru gusset by fabricator
℄ bottom chord

DETAILS - THROUGH SPANS 12-13-14

1½" ϕ hole in vertical by fabricator
4-⅞" Bolts
⅜" Pl.
¼" weld
2" Galv. Pipe Extra Strong
¼" weld
Cast Iron End Fitting
1" Galv. Cond.
L.B.V. ST. Conduit
Hub of Lamp Head
1½" Pipe Sleeve 4" long
Sponge Rubber Gasket
Plumbizer
3 Set Screws
2 Nipple

DETAIL OF LAMP HEAD & FLANGE CONNECTION TO VERTICAL
Spans 12-13-14

Manotube Pole
Cast Iron Sleeve Bracket
4-⅞" ϕ Bolts - Hex. Hd. & Nut
10"
2'-8"
Normal Shims in 8 1/16" Thicknesses
6"
2'-10"
6'-5"
16"
Const. Jt.
8" R
Manhole
7'-0"
1'-9"
1'-6"
1'-5"
2-⅞" ϕ Holes
2-Fills 4"x⅞"
2-⅞" ϕ Holes
2-⅞" O.H. Bath Flgs by Fabricator
2 Ø 4"x4"x⅝" 2 Ø 3"x3"x⅝"
¾" ϕ Rivets - 1⅛" ϕ 0.115 Shk.
1'-5"
1-2"x3"x⅜" Weld
Subpunch ⅞" in shop and Ream in field to 1⅛" after posts have been aligned.
1R - 2½"x⅜" weld
1" ϕ O.H. by Fabricator
VIEW A-A

LIGHT POLE SUPPORT FOR POLES - 3-4-5 & 6

Drill & Tap for ⅝" Hex. Hd. Screw
C.I. Cover
Flush with Bg Horn
Drill & tap for 1" G.I. Conduit Drain (Added - 2/48)

DETAIL OF JUNCTION BOX - J1 #2082

2'-7½"
2'-7½"
Min. Wt. of Frame & Cover - 135 # (Neenah Foundry Co. Catalog # R-6660-J or equal)
2'-4½"
Flush with finished Ground Line.
Face of Pole Foundation
6"
21½"
2'-0" min.
± 2'-6"
stone Drain
18"

DETAIL OF JUNCTION BOX - J4 # R-6660-J

Ll. Transformer Type "C" or "D"
2-¾" hole thru rail post flanges by fabricator

Drain
6" Rod Pad
1" Galv. Cond.
1½" Galv. Cond.
1" G.I. Cond.
1" G.I. Conduit Drain (Added - 2/48)
℄ Roadway

DETAIL FOR ALL DECK SPANS 3A to 11 & 15 to 30

COMPUTED	R.D.Hammel
CHECKED	A.L.Thomas
DRAWN	R.D.H.
CHECKED	A.L.T.
ASSEMBLED	
CHECKED	

EXAMINED 2-8-1947
P.T. Bundy BRIDGE ENGINEER
PASSED W.H. Gassaway ENGINEER OF DESIGN
APPROVED W.W. Boch CHIEF HIGHWAY ENGINEER

Rev. Light Fix. - Brackets & Junction Box J4 - R.W.H. 2/48

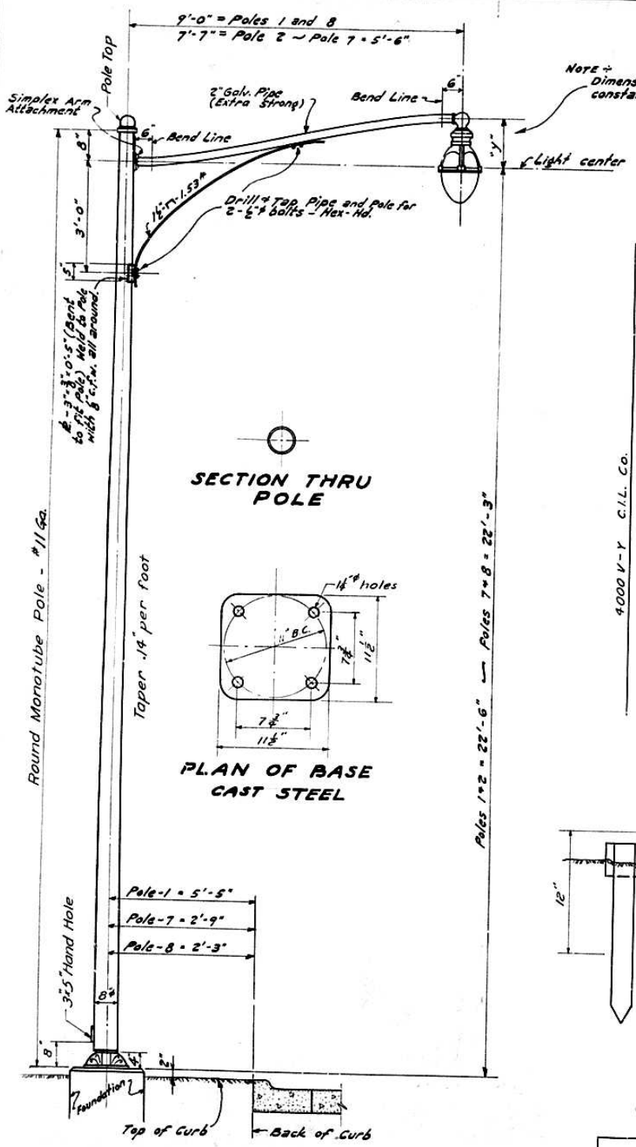
LIGHTING SYSTEM
ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F.A. ROUTE 172 SEC. 16 D-F-L
PEORIA - TAZEWELL CO'S.

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

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 172	15L	Peoria-Tazewell	15	8
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT- U-607(8)	

SUBSTITUTE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15-D	Peoria-Tazewell	44	42
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

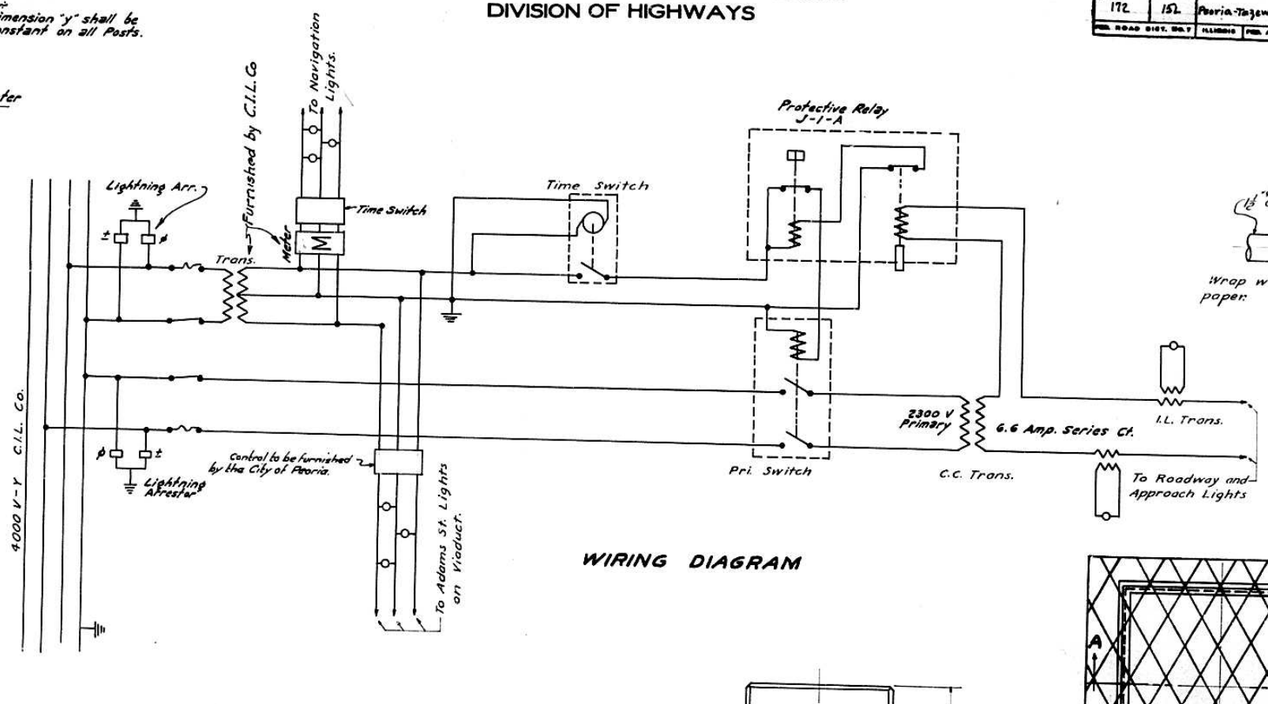
SHEET NO. 68
70 SHEETS



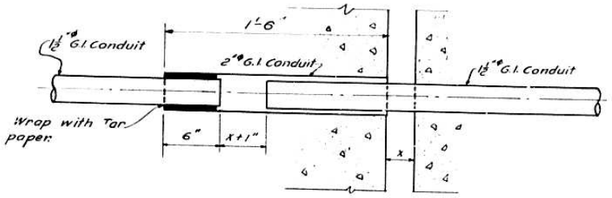
SECTION THRU POLE

PLAN OF BASE CAST STEEL

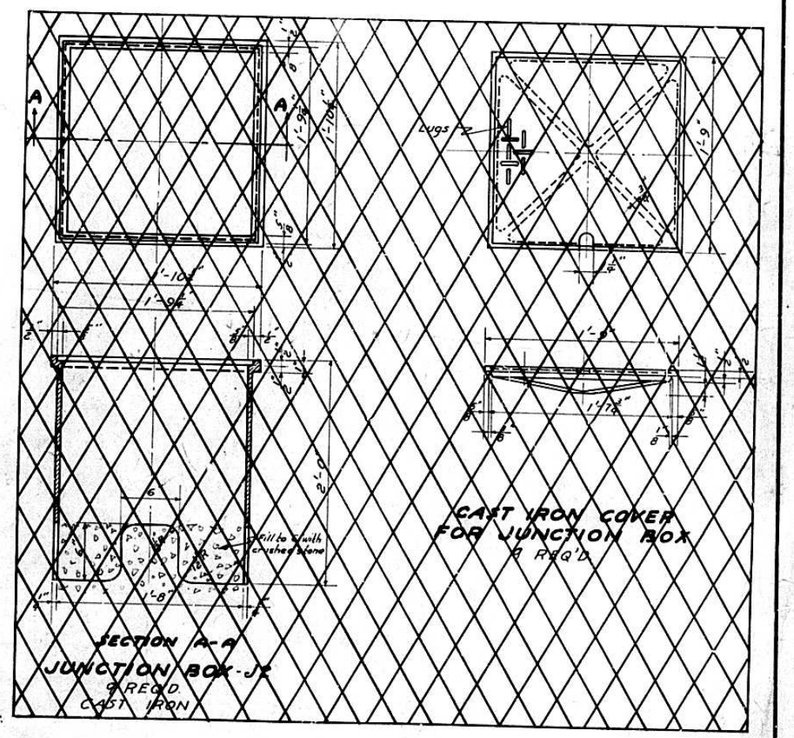
DETAIL OF LIGHT POLES 1-2-7 & 8

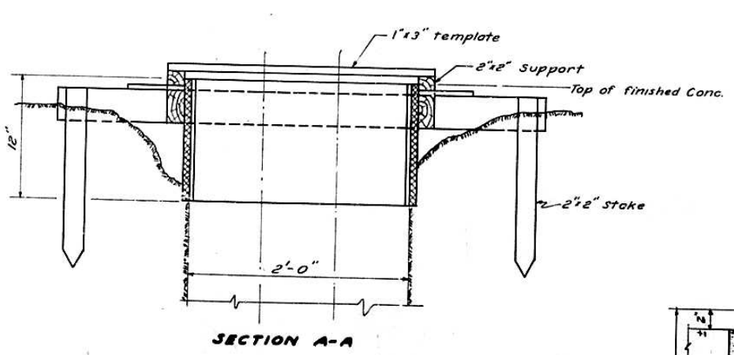


WIRING DIAGRAM

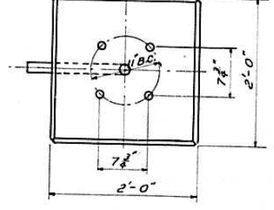


DETAIL OF EXPANSION DEVICE

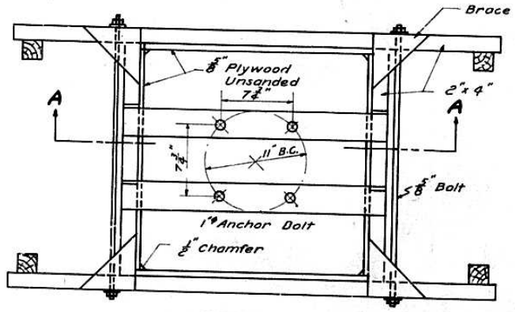




SECTION A-A

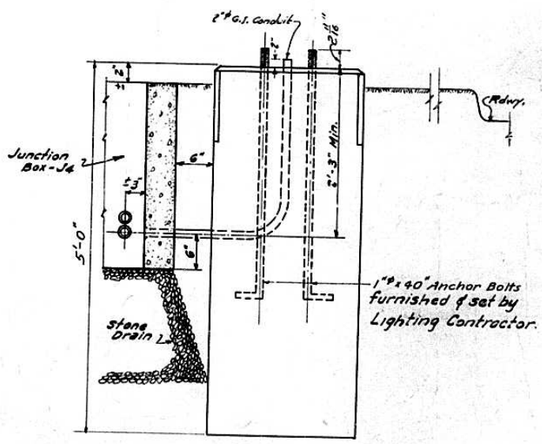


PLAN



PLAN

DETAIL OF FORM FOR FOUNDATION



ELEVATION

DETAIL OF FOUNDATION

	COMPUTED	R.W.H.
	CHECKED	A.L. Thomas
	DRAWN	R.W.H. & Vinoni
	CHECKED	A.L.T.
	ASSEMBLED	
	CHECKED	

EXAMINED 3-5- 1947
H. K. Burch BRIDGE ENGINEER
PASSED H. A. Greene ENGINEER OF DESIGN
APPROVED W. W. Peik CHIEF HIGHWAY ENGINEER

Rev. Pole-Light Fixture - R.W.H. 2/48

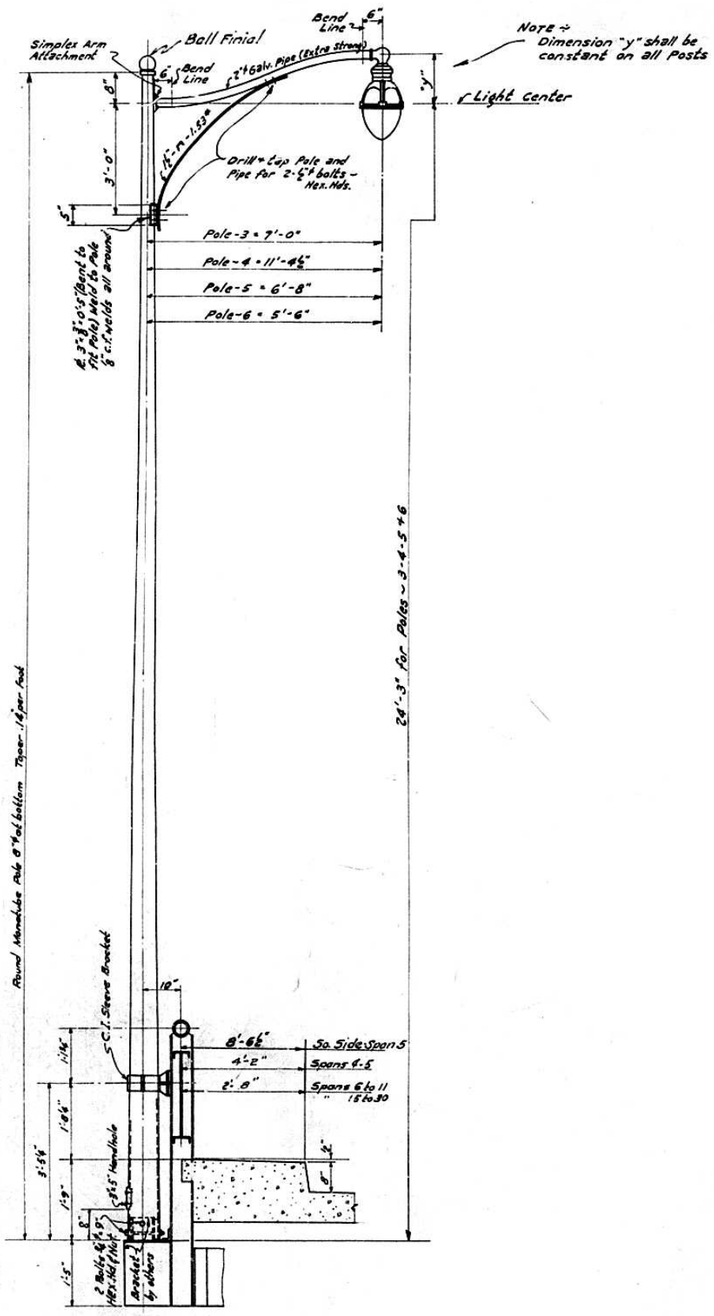
LIGHTING SYSTEM
ILLINOIS RIVER BRIDGE
HARVARD STREET PEORIA
F.A. ROUTE 172 SEC. 15 D-F-L
PEORIA-TAZEWELL CO'S.

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

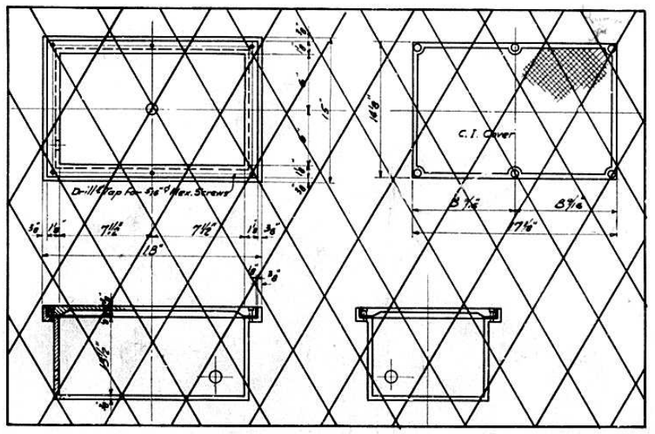
BOARD MINUTE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 172	15L	Peoria-Tazewell	15	9
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-ILLOO(8)		

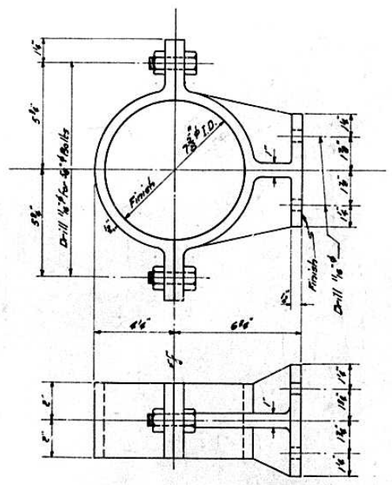
DEPARTMENTAL ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15-D	Peoria-Tazewell	44	45
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 69
70 SHEETS



DETAIL OF LIGHT POLES — 3-4-5 & 6





CAST IRON SLEEVE BRACKET
FOR CONNECTION LIGHT POLE TO RAIL POST

BILL OF MATERIAL
LIGHTING SYSTEM SEC. 15-L

ITEM	UNIT	SEC 15 L	SEC. 15 D
Light Poles & Brackets	Each	58	
Lighting Bracket - 1	"	19	
Concrete Foundations	"	11	
Cable	Lin. Ft.	12,750	
Navigation Circuit Wire & Cable	"	4500	
Trench (± 2'-0" Deep)	"	1380	
Constant Current Regulator	Each	1	
Primary Control Switch	"	1	
Protective Relay	"	1	
Time Switch	"	2	
Primary Cutouts	"	6	
Lightning Arresters	"	6	
Type "A" Lighting Fixtures	"	11	
" "D" "	"	9	
" "C" "	"	57	
I.L. Transformers - Type "A"	"	5	
" - "B"	"	4	
" - "C"	"	57	
" - "D"	"	2	
Galvanized Iron Conduit 2"ϕ	Lin. Ft.		70
" " " 1½"ϕ	"		9850
" " " 1"ϕ	"	500	4810
" " " ¾"ϕ	"	670	
Junction Boxes - J1	Each		55 66
Junction Box - J4	Each	11	1
3/c Number 10 RR Cable	Lin. Ft.	400	
Cast Iron Sleeve Bracket	Each	43	
Navigation Lanterns	Each	44	
Cleaning and Painting Lighting Systems		Lump Sum	

	COMPUTED	R.W.H.
	CHECKED	A.L. Thomas
	DRAWN	R.F.W.
	CHECKED	A.L.T.
	ASSEMBLED	
	CHECKED	

EXAMINED 8-8 1957
D. V. Burch
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED W. W. Polk
CHIEF HIGHWAY ENGINEER

~~Light Fixtures Rev. 3-29-56 RWH~~ Rev. Pole-Light Fix. 2/58 R.W.H.

LIGHTING SYSTEM
ILLINOIS RIVER BRIDGE
HARVARD STREET - PEORIA
F.A. RTE. 172 ~ SEC. 15 D-P-L
PEORIA - TAZEWELL COUNTIES

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

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15L	Peoria-Tazewell	15	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-ILCD5(A)		

REGULAR NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 172	15-D	Peoria-Tazewell	44	44
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 70
70 SHEETS

Note "A" - Bend 1"ϕ Conduit down out of slab on N. side as indicated by broken line. (Added - 2/48)

Norwood Noonan Fig 1P-8" 180° Red. Fresnel Lens 50W. Clear Vibration Service Lamp-Renewed From Back. Cast Aluminum Body. 4 Read. 1 Each Truss at Piers 10 & 13.

SECTION GG

Pier 10
Pier 13

Norwood Noonan Fig 1A 8" 180° White Fresnel Lens - Cast Aluminum Body Lamp Renewed From Back 25W-A19-Inside Frosted Globe 6 Read

Norwood Noonan Fig 1P Pivoted Mounting 8"-180° Red Globe-Vapor Proof Fittings-25W-A19 Inside Frosted General Purpose Lamp-Cast Aluminum Body-Lamp Renewed From Back. 2 Read For Pier 22

Pier 22

Section MM

Norwood Noonan - Fig 6P - Pivoted Mounting 8"-36° Green Fresnel Lens 50W-Clear Vibration Service Lamp-Cast Aluminum Body-Lamp Renewed From Batt. - 4 Read. at L7-L7A - Spans 12 & 14. Lamps are 11'-0⅞" East of panel points L7 & L7A - South Truss and 11'-0⅞" West of L7 & L7A North Truss.

SECTION FF

L7 - L7A

Spans 12 & 14

Norwood Noonan - Fig 1P - Pivoted Mounting - 8"-180° Red Globe-Vapor Proof Fittings-25W-A19-Inside Frost-General Purpose Lamp-Cast Aluminum Body-Lamps Renewed From Back - 8 Read - 2 at Pier 8 - 2 at Pier 9 - 2 at Pier 14 - 2 at Pier 15

Piers 8-9-14-15

SECTION HH

Norwood Noonan - Fig 1P - Pivoted Mounting - 8"-180° Red Globe-Vapor Proof Fittings-25W-A19-Inside Frost-General Purpose Lamp-Cast Aluminum Body-Lamps Renewed From Back - 2 Read - 2 at Pier 17, 18, 20, 21

Piers 17, 18, 20, 21

Section KK

Norwood Noonan - Fig 1P - Pivoted Mounting - 8"-180° Red Globe-Vapor Proof Fittings-25W-A19-Inside Frosted General Purpose Lamp-Cast Aluminum Body-Lamp Renewed From Back. 2 Read For Pier 19

Pier 19

Section LL

L22 North Truss

NOTE - Ladders & Lights are West of Vertical U22 L22 on North Truss & East of U22 L22 on South Truss

SPAN 13

SECTION CC

SECTION EE

Pier 11-L14
Pier 12-L14A

Norwood Noonan - Fig 1P - Pivoted Mounting - 8"-180° Red Fresnel Lens - 50W - Clear Vibration Service Lamp - Cast Aluminum Body Lamp Renewed From Back - 4 Read - 1 Each Truss at Piers 11 & 12

SPAN 13

PIER 11 & 12

Norwood Noonan Fig 1P - Pivoted Mounting - 8"-180° Red Globe-Vapor Proof Fittings-25W-A19-Inside Frost-General Purpose Lamp-Cast Aluminum Body-Lamp Renewed From Back - 2 Read at Pier 7.

Pier 7

SECTION JJ

SECTION NN

Lamp & Fig Same as For Pier 17 Except Length of Arm. 2-Read For Pier 16.

Pier 16

COMPUTED	A.L. Thomas
CHECKED	R.D. Thamel
DRAWN	A.L.T.
CHECKED	R.D.T.
ASSEMBLED	
CHECKED	

EXAMINED 8-8- 1947
H. F. Bruhl
BRIDGE ENGINEER

PASSED W. A. Bowman
ENGINEER OF DESIGN

APPROVED W. W. Polk
CHIEF HIGHWAY ENGINEER

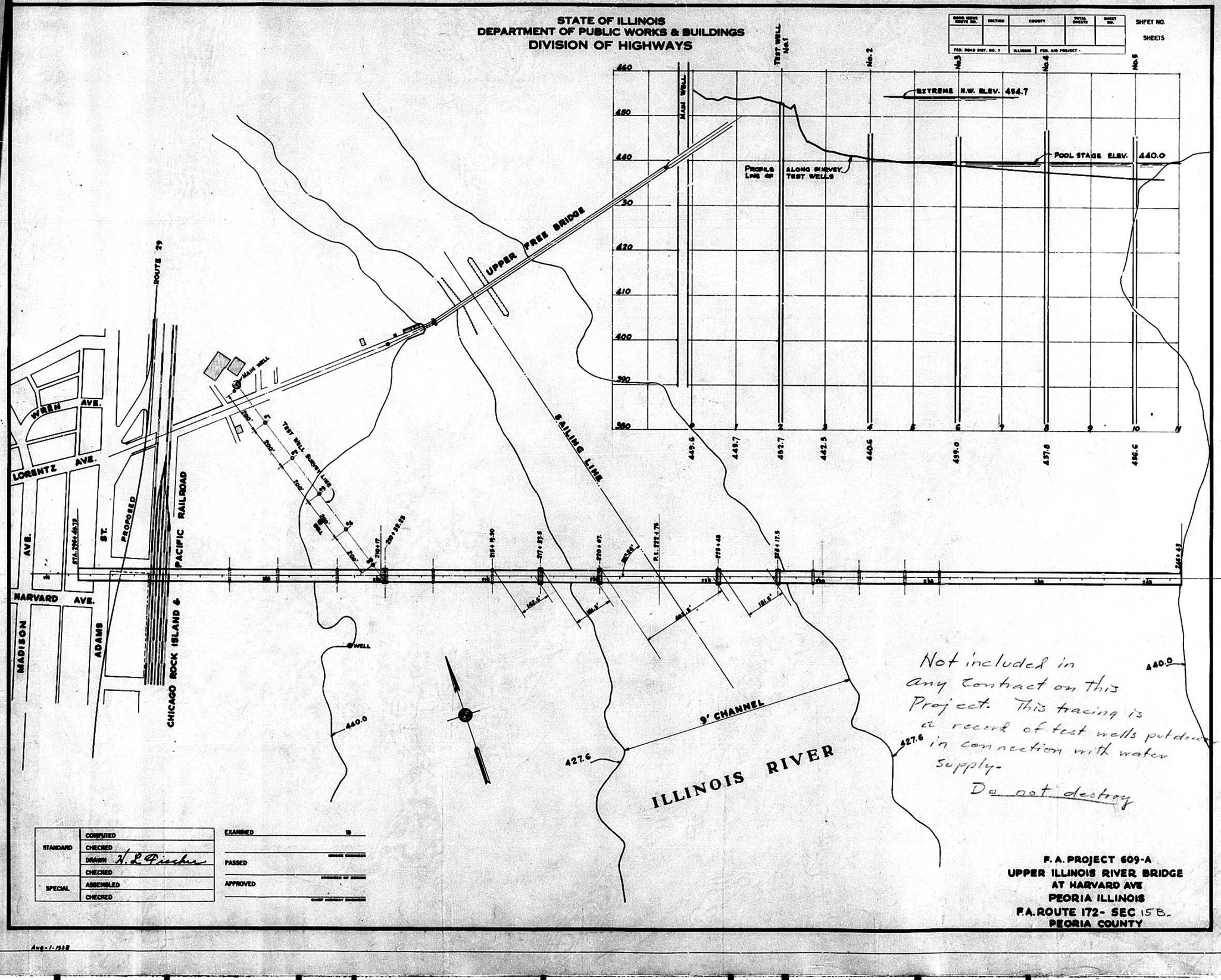
Light Fixtures Rev. 9-24-46 A.L.T.

NAVIGATION LIGHTING DETAILS
ILLINOIS RIVER BRIDGE
HARVARD STREET - PEORIA
F.A. ROUTE 172 - SECTION 15-D-F.L.
PEORIA-TAZEWELL COUNTIES

Peoria Co Sec. 15B not used in Contract Plans
File Peoria Co Sec 15B

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

ROAD DIST. ROUTE NO.	DIRECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT -	



STANDARD	COMPUTED	
	CHECKED	
	DRAWN H. L. Fischer	
SPECIAL	CHECKED	
	ASSEMBLED	
	CHECKED	

EXAMINED 19
PASSED
APPROVED

Not included in any contract on this Project. This tracing is a record of test wells put down in connection with water supply.
Do not destroy

F. A. PROJECT 609-A
UPPER ILLINOIS RIVER BRIDGE
AT HARVARD AVE
PEORIA ILLINOIS
F.A. ROUTE 172- SEC 15B.
PEORIA COUNTY

Aug-1-1938