

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTES 320 & 774 (IL RTE. 121 & IL. RTE 128)
SECTION D7 BRIDGE PAINTING 2016-3

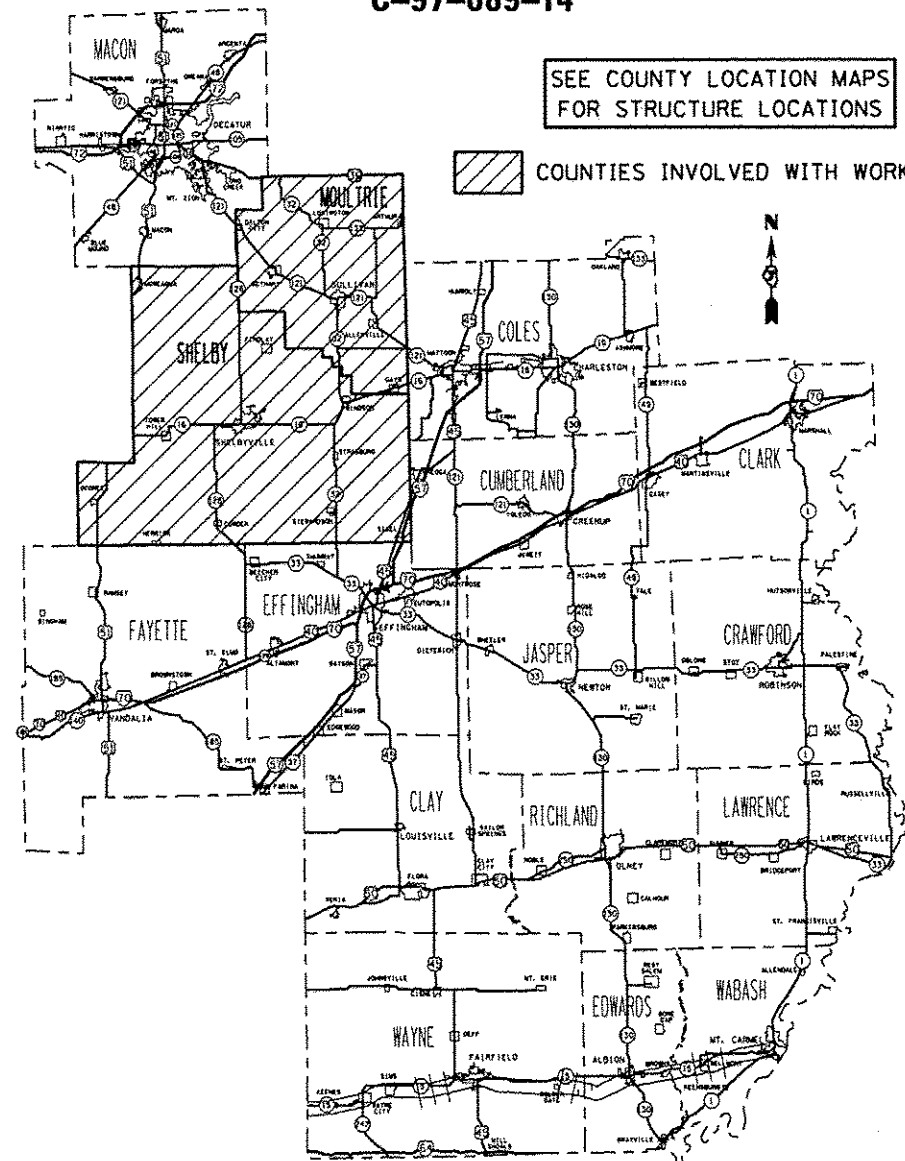
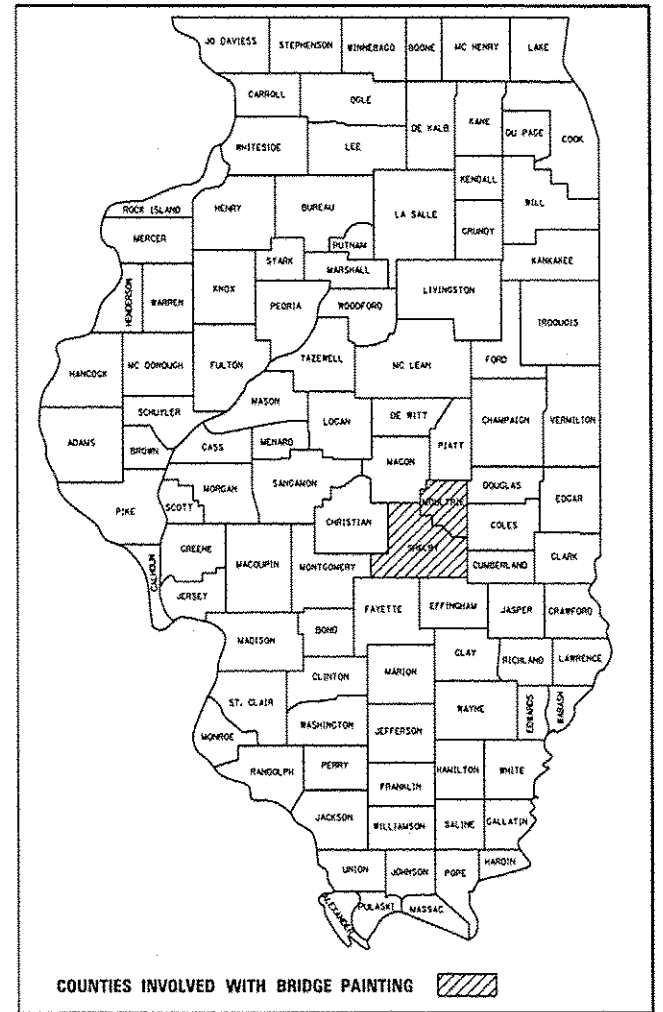
BRIDGE PAINTING
MOULTRIE & SHELBY COUNTIES

C-97-089-14

FOR INDEX OF SHEETS, SEE SHEET NO. 2

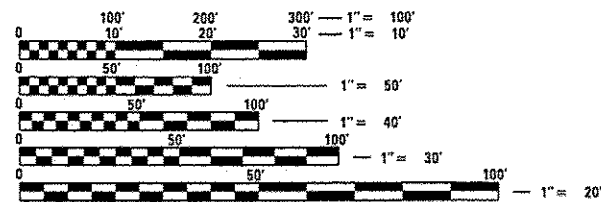
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
774	D7 BRIDGE PAINTING 2016-3	ILLINOIS	10	1
CONTRACT NO. 74683				

• MOULTRIE & SHELBY



SEE COUNTY LOCATION MAPS
FOR STRUCTURE LOCATIONS

COUNTIES INVOLVED WITH WORK



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: TOM RONAN
PROJECT MANAGER: TOM RONAN
PHONE: (217)-342-8320
CONTRACT NO. 74683

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 19 2015
Roger L. Dinkell (160)
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Oct 2 2015
John D. Baranzoli PE/16
acting ENGINEER OF DESIGN AND ENVIRONMENT

Oct 2 2015
Omer Osman PE/16
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

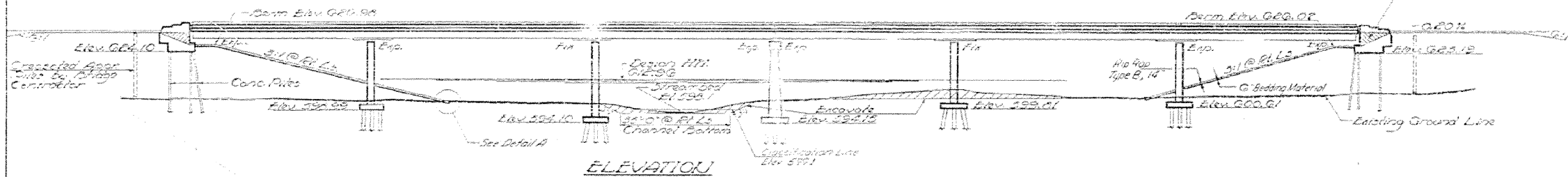
PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

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

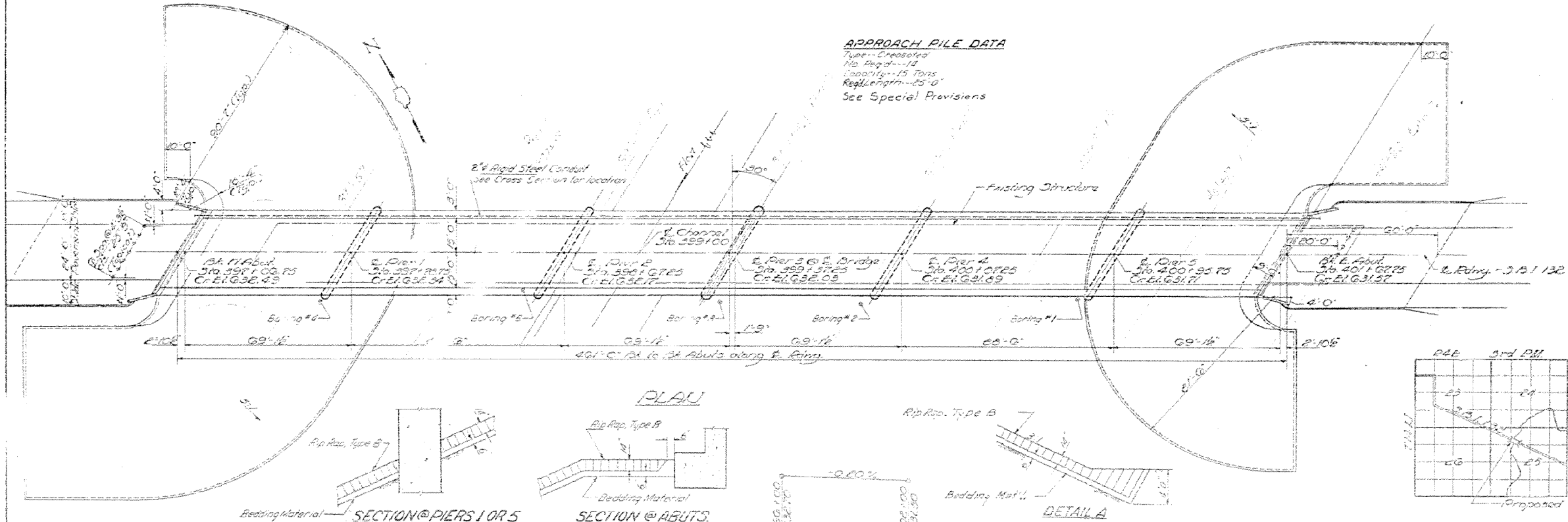
NO. 1038R	1038R	1038R	1038R	1038R
1038R	1038R	1038R	1038R	1038R
1038R	1038R	1038R	1038R	1038R
1038R	1038R	1038R	1038R	1038R

SHEET NO. 1
14 SHEETS

1.1. Existing Structure: RC deck girder, 7 spans @ 61'-2".
Concrete Substructure: Superstructure and portions of substructure which interfere with construction are to be removed by Bridge Contractor before new construction. No Salvage.



APPROACH PILE DATA
Type - Crossed
No. Piles - 14
Capacity - 15 Tons
Length - 65'-0"
See Special Provisions



DESIGNED	EMMY J. STARK
CHECKED	R. J. TAYLOR
DRAWN	E. S. W. L. J.
CHECKED	R. J. TAYLOR

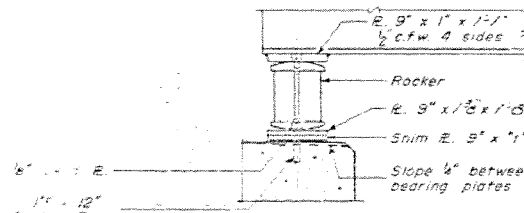
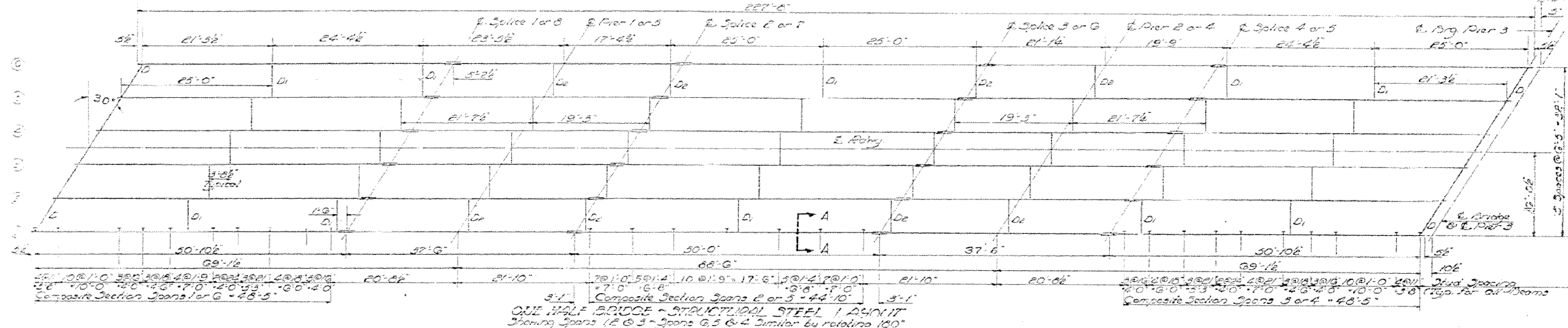
DEC 13 1963
EXAMINED
PASSED
APPROVED
U. E. RAY

WATERWAY INFORMATION
Drainage Area 100000 Acres
Channel Level, Selling Cultivated
Required Opening 130 WFTU @ 14' Sp. Ft.
Present Opening 8000 Sq. Ft.
Proposed Opening 2774 Sq. Ft.
Crossing Point Elev. 598.6
Low Water Elev. 595.1
Reservoir Design Stage Elev. 620.5

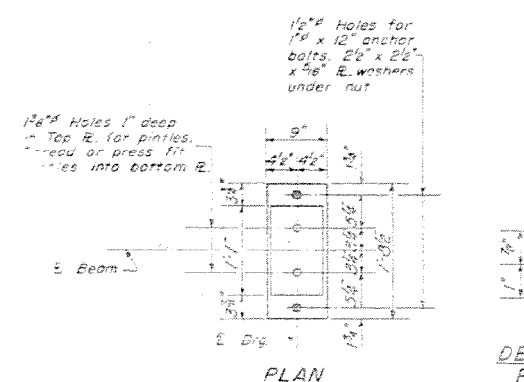
DESIGN STRESSES
F_c = 14000 p.s.i. Super & Sub
F_s = 25,000 p.s.i. Flg.
F_t = 20,000 p.s.i. Struct.
n = 10
Allowable 4. Defl. 4/1000 Composite
LOADING HS20-44

GENERAL PLAN & ELEVATION
S.B.I. PT. 132 - SEC. 103-132
MOULTRIE COUNTY
STA. 399+37.25

REV. 4-5-66 FROM SLOPE WALL (6") & RIPRAP, TYPE B, 14" WITH 6" BEDDING MATERIAL.

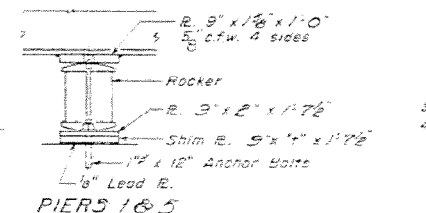


SECTION AT ABUTMENT & PIER 3

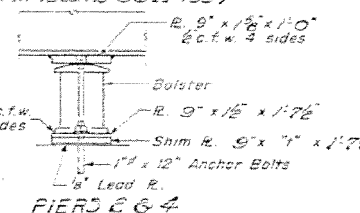


PLAN

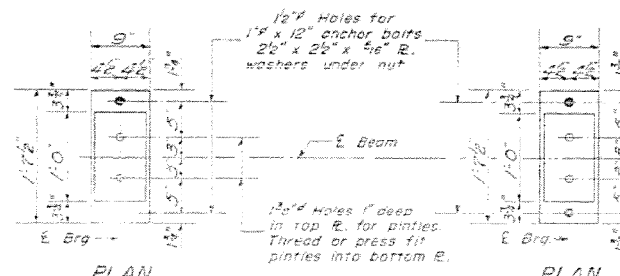
DETAIL OF PINTLE



PIERS 1 & 5



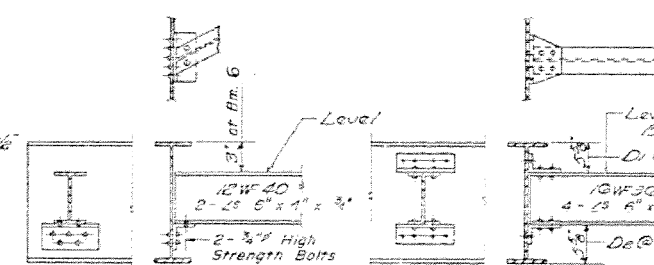
PIERS 2 & 4



PLAN

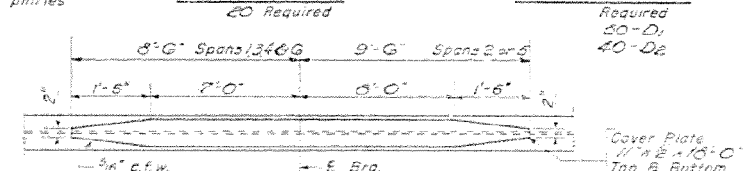
PLAN

Note: 1\"/>

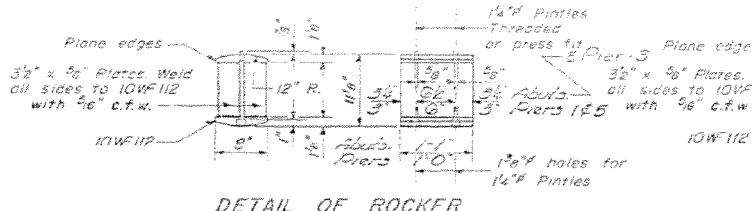


DIAPHRAGM D

DIAPHRAGM D1 & D2



DETAIL OF COVER PLATE



DETAIL OF ROCKER AT PIERS 1, 3 & ABUTTS.

DETAIL OF BOLSTER AT PIERS 2 & 4

DETAIL OF SPLICE

ELEVATION TOP OF WF

Loc	Beam	1	2	3	4	5	6
Abutment	1	631.75	631.65	631.91	631.90	631.06	631.69
Splice 1	1	631.55	631.65	631.75	631.75	631.65	631.55
Pier 1	1	631.55	631.65	631.75	631.75	631.65	631.55
Splice 2	1	631.45	631.60	631.60	631.65	631.57	631.44
Splice 3	1	631.35	631.51	631.51	631.52	631.43	631.35
Pier 2	1	631.35	631.47	631.47	631.48	631.40	631.31
Splice 4	1	631.31	631.43	631.43	631.43	631.40	631.27
Pier 3	1	631.25	631.40	631.40	631.45	631.37	631.24
Splice 5	1	631.10	631.22	631.22	631.27	631.19	631.06
Pier 4	1	631.05	631.15	631.15	631.15	631.15	631.05
Splice 6	1	631.05	631.15	631.15	631.15	631.11	630.94
Splice 7	1	630.93	631.05	631.07	631.10	631.02	630.89
Pier 5	1	630.89	631.01	631.07	631.06	630.96	630.84
Splice 8	1	630.85	630.97	631.03	631.03	630.94	630.84
Abutment	1	630.85	630.94	631.00	630.99	630.84	630.75

STRUCTURAL STEEL
31.1.17.132 - SEC. 103-132
MOULTRIE COUNTY
374.359 + 37.65

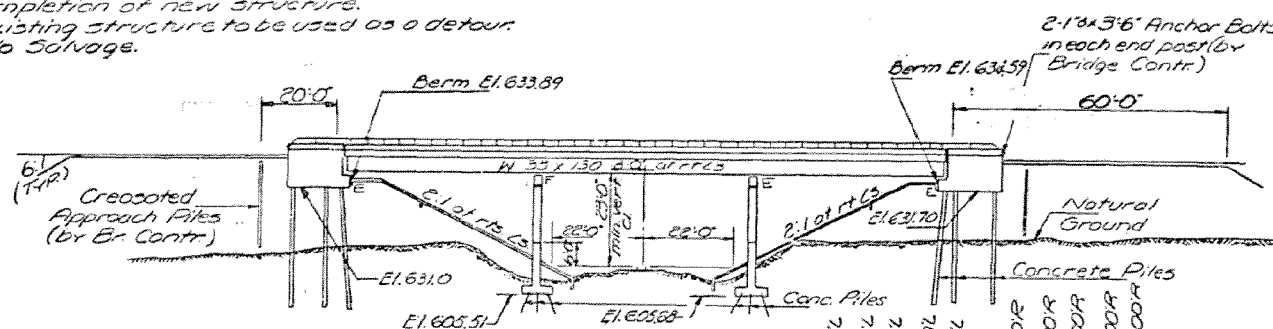
DESIGNED: Emory J. Steffen
CHECKED: R. X. Taylor
DRAWN: E. S. W. A. Soussan Jr.
CHECKED: R. X. T.
EXAMINED: W. E. B...
PASSED: C. E. H...
APPROVED: C. E. H...

I-2-C 7-2-62 Rev 11-9-62

B.M. R.R. Spike in timber bridge column, Existing
Elev. 631.0
Sta. 21+52.90 in 1925. Superstructure is R.C. 300' long
with reinforced concrete abutments
Contractor shall remove exist. structure after
completion of new structure.
Existing structure to be used as a detour.
No Salvage.

GENERAL NOTES

Coal tar Interlayer Protective Coat is applied to
All reinforcement bars shall be lapped 24 diameters
unless otherwise shown.
Fasteners shall be high strength bolts. Bolts 3/4";
open holes 1 1/8" unless otherwise noted.
Calculated weight of Structural Steel = 139,170 Lbs.
Field welding of construction accessories will not be
permitted to the bottom flange of beams or girders nor to
the top flange for a distance equal to one-fourth the span
length each way from the pier supports. Field welding
in other areas will be permitted only when approved by
the Engineer.
Anchor bolts shall be set before bolting diaphragms
over supports.
The Contractor shall drive one concrete test pile in
a permanent location at Pier 1 as directed by the Engr.
before ordering the remainder of piles.
The embankment configuration shown shall be the
minimum embankment that must be constructed prior to
construction of the abutments.
The concrete rail section above the mandatory
construction joint at the top of the slab shall be
constructed of Class X Concrete, except the aggregates
shall conform to the requirements of Handrail Conc.
The basic lead silico chromate paint system shall be
used for shop and field painting of Structural Steel.
Slope wall shall be reinforced with welded wire fabric 6"x6"
mesh, weighing 58# per 100 sq. ft.
Concrete piles at Abuts. shall be driven in holes pre-
cored through the embankment in accordance with Article
51309(c) of the Standard Specifications.

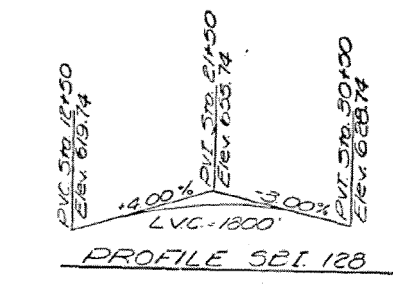


APPROACH PILE DATA

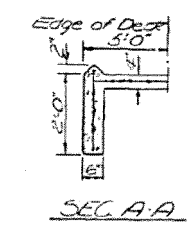
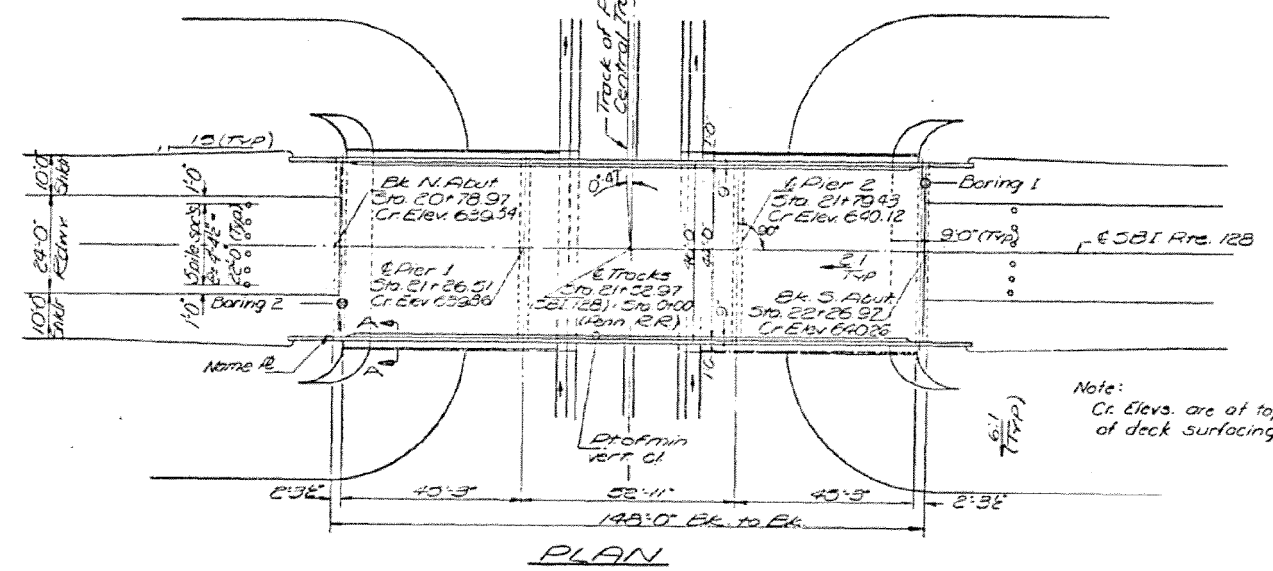
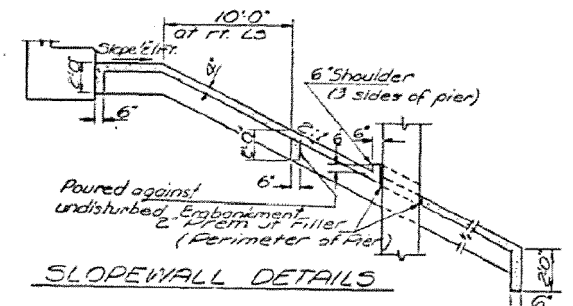
Type:	Crested
No. Req'd:	12
Length:	30'

ELEVATION

East	300'	200'	100'	0	100'	200'	300'	West
Elev. 616.66	Elev. 612.08	Elev. 612.62	Elev. 612.50	Elev. 612.61	Elev. 612.79	Elev. 612.97	Elev. 613.99	Elev. 618.79
Elev. 612.08	Elev. 612.62	Elev. 612.50	Elev. 612.61	Elev. 612.79	Elev. 612.97	Elev. 613.99	Elev. 618.79	Elev. 612.93

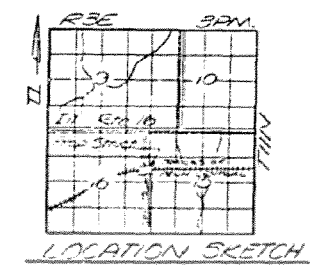


Note:
The Engineer shall determine in the field
the location of the deck drains in the spans
where R.R. signal and communication
pole lines are involved. No deck drains
shall be permitted in spans over R.R.
tracks



STATION 21+52.97
BUILT 19 BY
STATE OF ILLINOIS
SBI RT. 128 SEC. 101 VB-1

LOADING H520
NAME PLATE
See Std. 2113



TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Structure Excavation	Cu Yd		135	135
Protective Coat	Sq. Yd	130		130
Class X Concrete	Cu Yd	209.5	251.1	455.6
Structural Steel	L.S.	L.S.		L.S.
Aluminum Rolling	Lin Ft.	332		332
Reinforcement Bars	Pound	51670	25220	76,890
Concrete Piles	Lin Ft.		2136	2136
Test Piles (Concrete)	Ea.		1	1
Name Plates	Ea.	1		1
Crested Piles (201 to 381)	Lin Ft.		360	360
Preformed Jt. Sealer	Lin Ft.	92		92
Removal of Existing Structure	Ea.			1
Slope wall (3")	Sq. Yd		887	887
Bituminous Concrete Surface Course, Class I	Tons	577		577
Coal tar Interlayer Protective Coat	Sq. Yd	684		684

INT. BEAM MOMENT TABLE

Span	1st Span	2nd Span	3rd Span	4th Span
M (k)	6699	6699	6699	6699
M (k)	1.445	1.445	1.445	1.445
M (k)	215	350	157	
M (k)	316.0	243.4	301.7	
M (k)	91.7	70.6	67.5	
M (k)	622.7	664	546.2	
M (k)	18.46	19.68	16.19	

GENERAL PLAN & ELEVATION

SBI RT. 128 OVER TRACKS
OF PENN CENTRAL
TRANSPORTATION CO.
SBI RT. 128 SEC. 101 VB-1
SHELBY COUNTY
STA. 21+52.97

DESIGN STRESSES

f_c = 1200 psi (Super) f_c = 1400 (Curb, Parapet & Sub)
f_s = 20000 psi (Reinf.)
f_s = 20,000 psi (Struct.)
v = 75 psi (FTG)
n = 10
δ = Deflection 4/1000 non-simp.
Design Specifications 1969 AASHTO (as applicable)

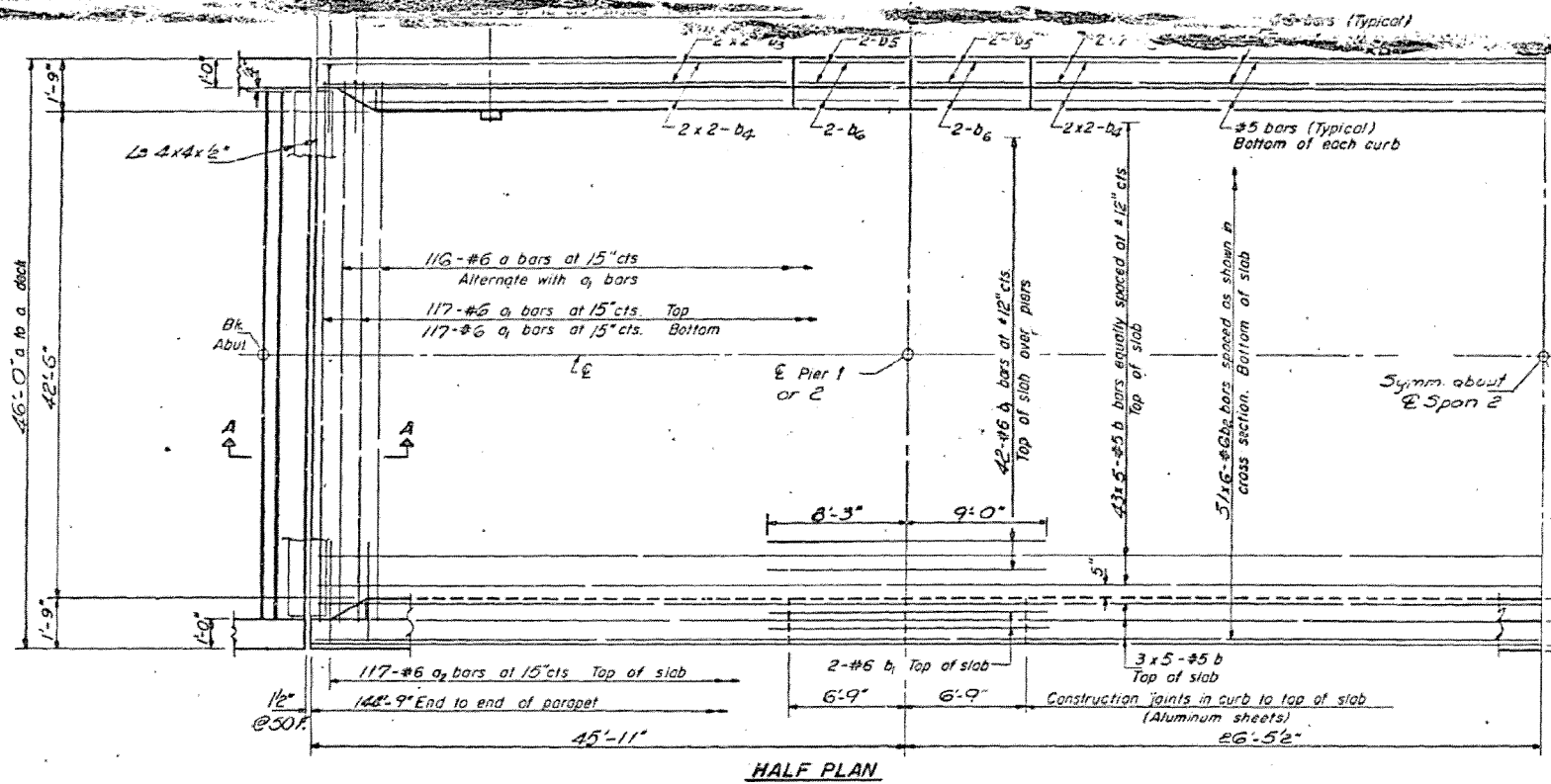
LOADING H520-44

DESIGNED	Exam. [Signature]	EXAMINED	[Signature]
CHECKED	C. T. C.	PASSED	[Signature]
DRAWN	A. Barrozo	APPROVED	[Signature]
CHECKED	C. T. C.		

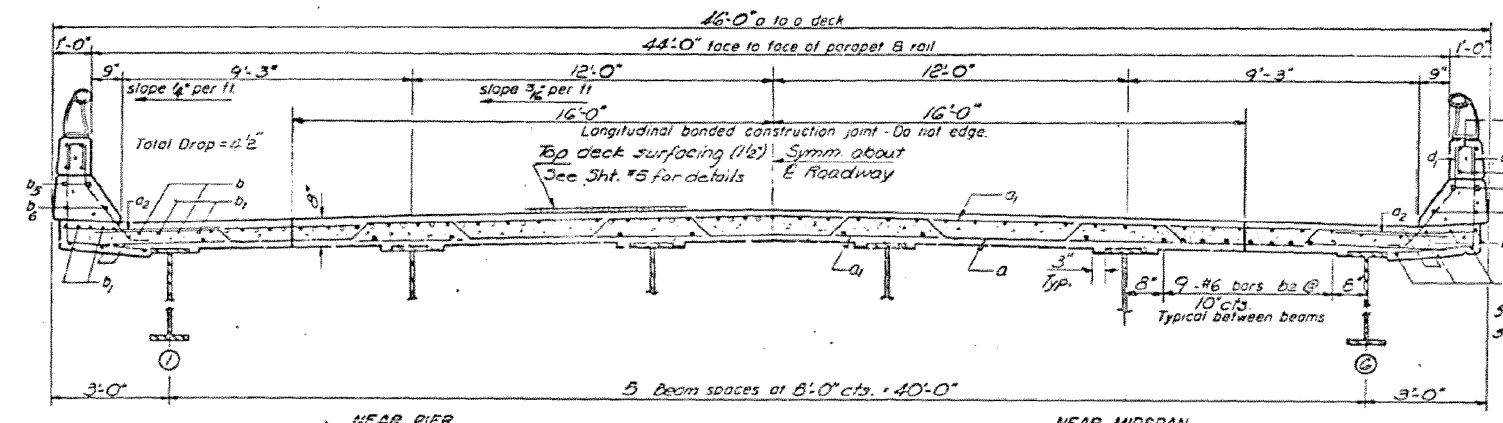
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE	12/10/15	PROJECT	Shelby	DATE	29	SHEET NO.	8	TOTAL SHEETS	11
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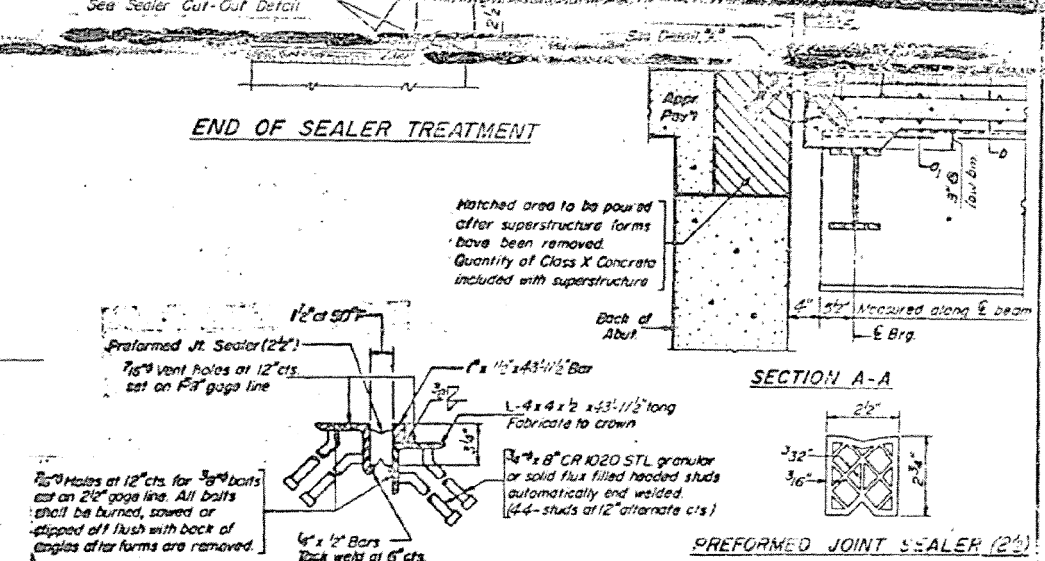
Note:
Bars indicated thus 20 x 3 - #5 etc.
indicates 20 bars of bars
3" spacing
bars = 24 dia



HALF PLAN

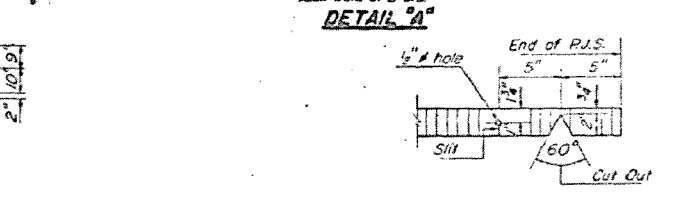


CROSS SECTION
LOOKING SOUTH



END OF SEALER TREATMENT

SECTION A-A

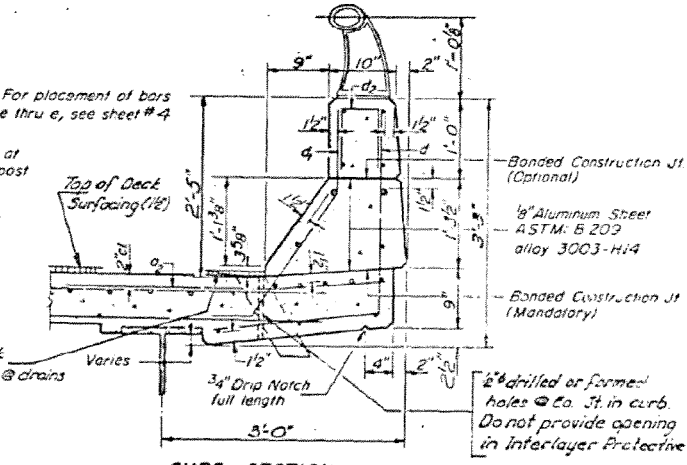


DETAIL 'A'

SEALER CUT-OUT DETAIL

BILL OF MATERIAL

Bar	No	Size	Length	Notes
a	116	#6	45'-0"	
b	234	#6	4'-0"	
c	2-5	#5	30'-0"	
d	92	#6	17'-3"	
e	306	#6	25'-0"	
f	24	#6	20'-0"	
g	24	#5	20'-3"	
h	5	#6	6'-6"	
i	5	#5	6'-6"	

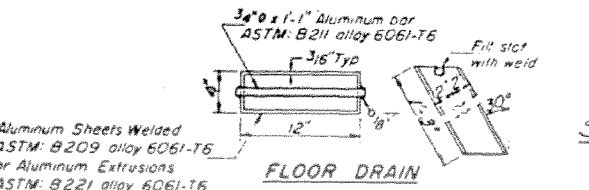
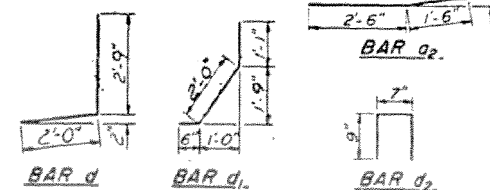
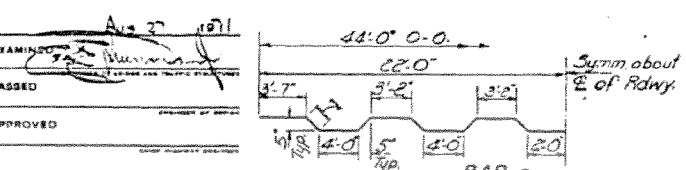


CURB SECTION

Cost of Aluminum Drains and Sheets
shall be incidental to Class X Concrete

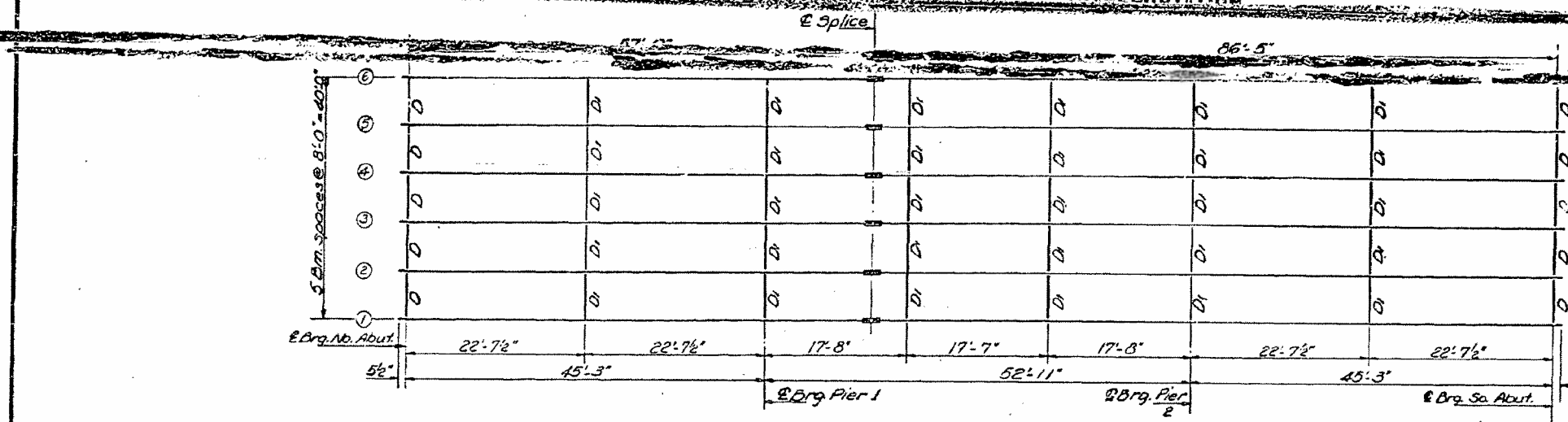
DESIGNED	Ch. T. C.
CHECKED	Ch. T. C.
DRAWN	A. Borrozo
CHECKED	C. T. C.

I-4106-0 3-1-68, 12-3-69

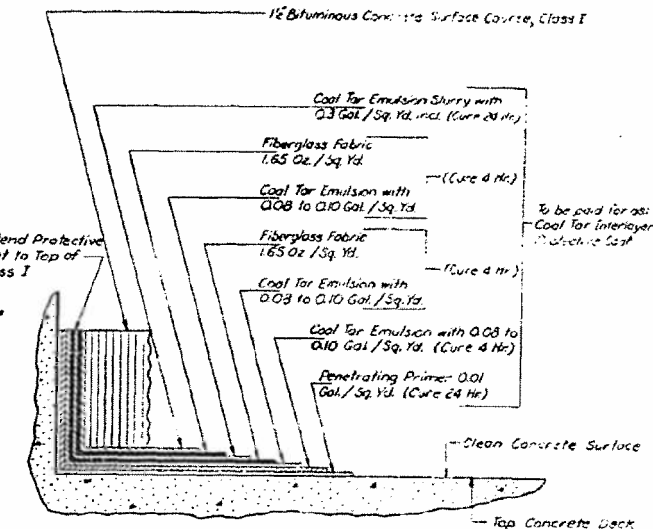


The lengths and quantities of longitudinal reinforcement and Class X Concrete in parapets are not included in above quantities. See sheet #4.

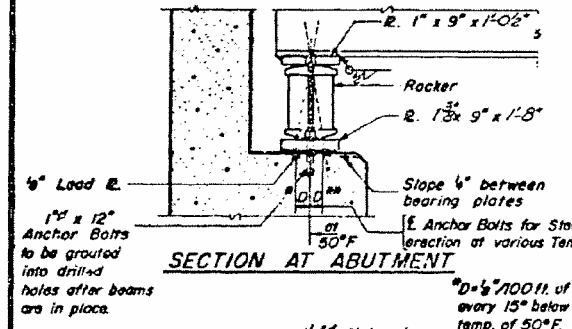
SUPERSTRUCTURE
S.B.I. RTE. 126 SEC. DIVISION
SHELBY COUNTY
STA. 21+52.97



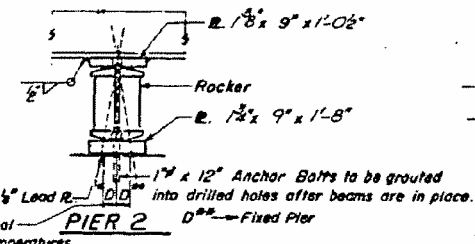
FRAMING PLAN
All beams are W33x130



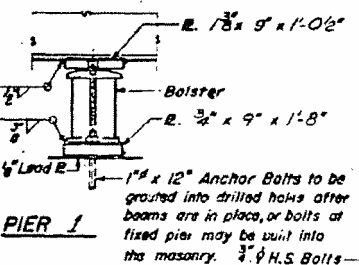
DECK SURFACING
with Cool Tar Interlayer Protective Coat



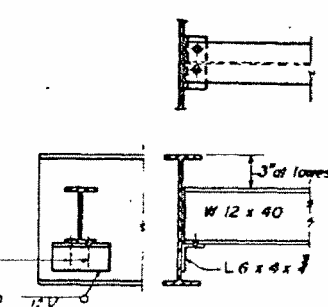
SECTION AT ABUTMENT



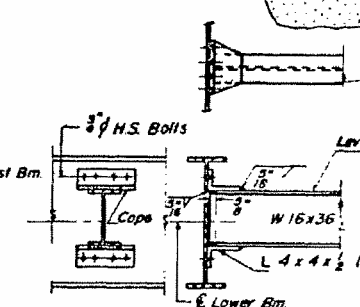
PIER 2
D Fixed Pier



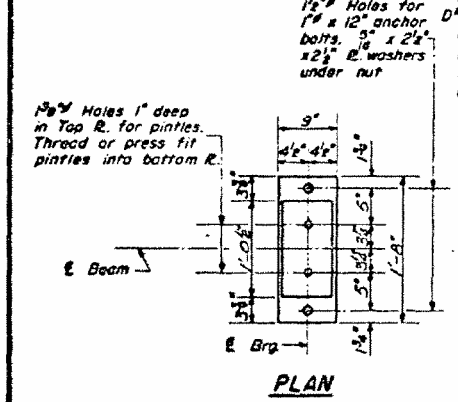
PIER 1



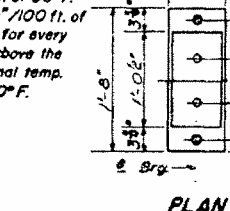
DIAPHRAGM D
10 Required



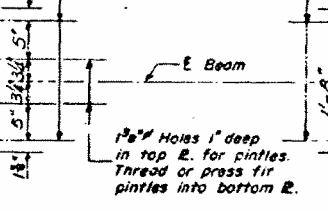
DIAPHRAGM D1
30 Required



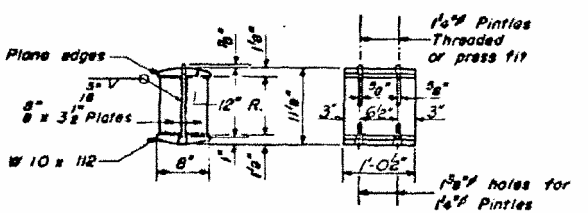
PLAN



DETAIL OF PINTLE

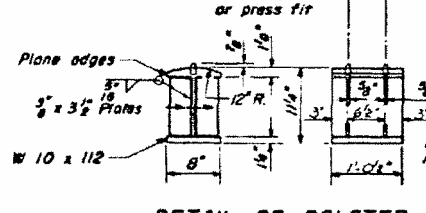


PLAN

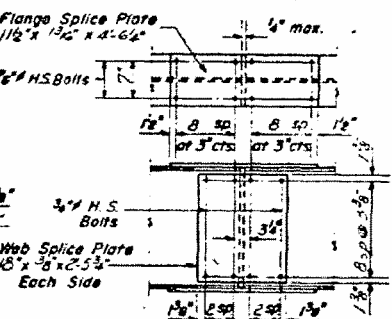


DETAIL OF ROCKER AT ABUTS. & PIER 2

Note: Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\pm 1/8$ ". Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/2" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.



DETAIL OF BOLSTER AT PIER 1



DETAIL OF SPLICE

ELEVATION TOP OF W33x130

	Bm 1E6	Bm 2E6	Bm 3E6
E Brq. N. Abut.	635.40	635.57	635.69
E Brq. Pier 1	635.62	635.61	635.93
E Splice	635.70	635.87	635.90
E Brq. Pier 2	636.69	636.23	636.15
E Brq. S. Abut.	639.10	639.27	639.19

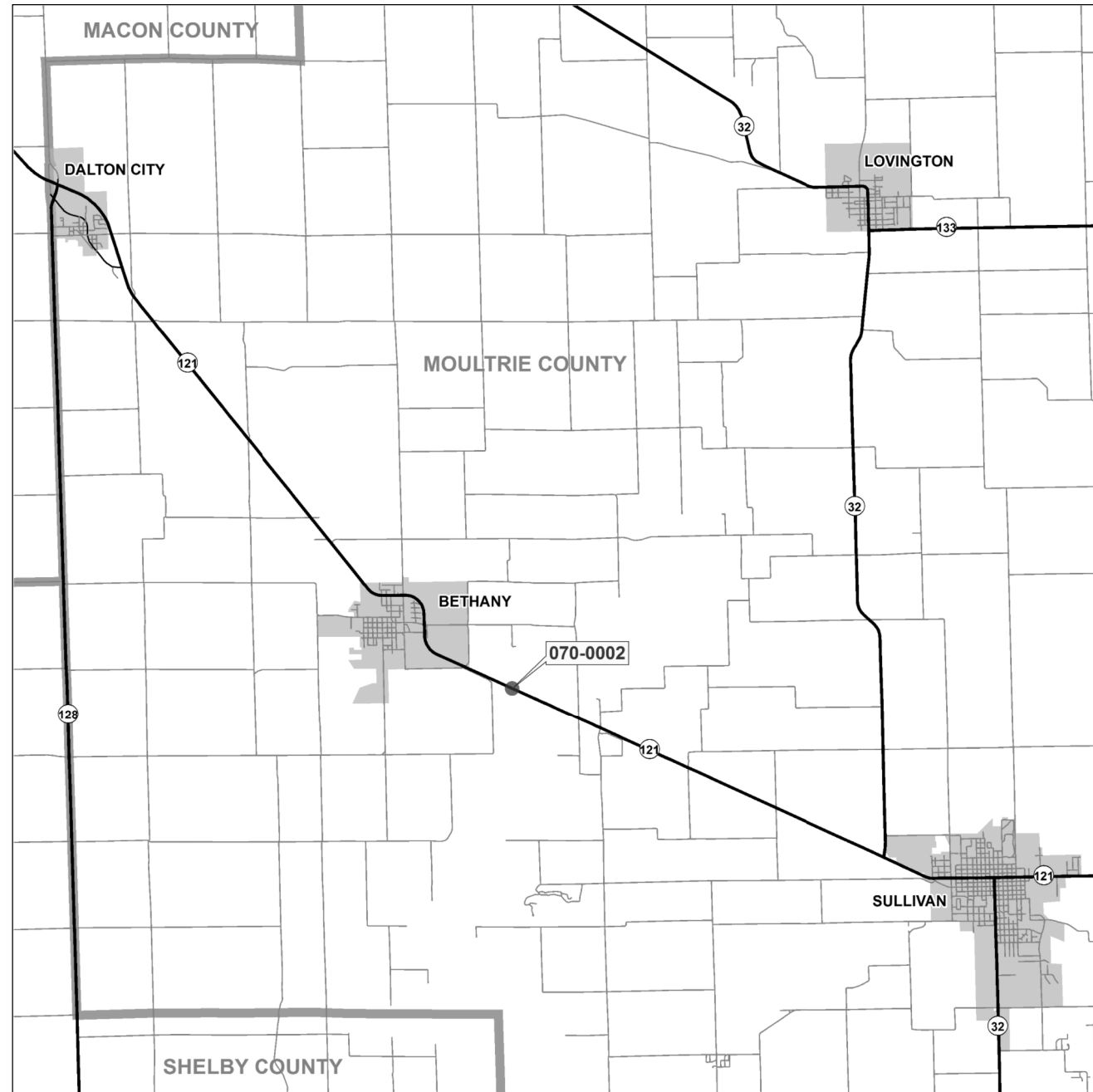
DESIGNED: *Chris E. ...*
CHECKED: *Chi ...*
PG Bennett
DRAWN: *A. Borrozo*
W.A. Soulemon Jr.
CHECKED: *C.T.C.*

I-2 2-2-62 Rev 11-9-62 Rev 8-16-63 Rev 12-10-63 Rev 8-1-70

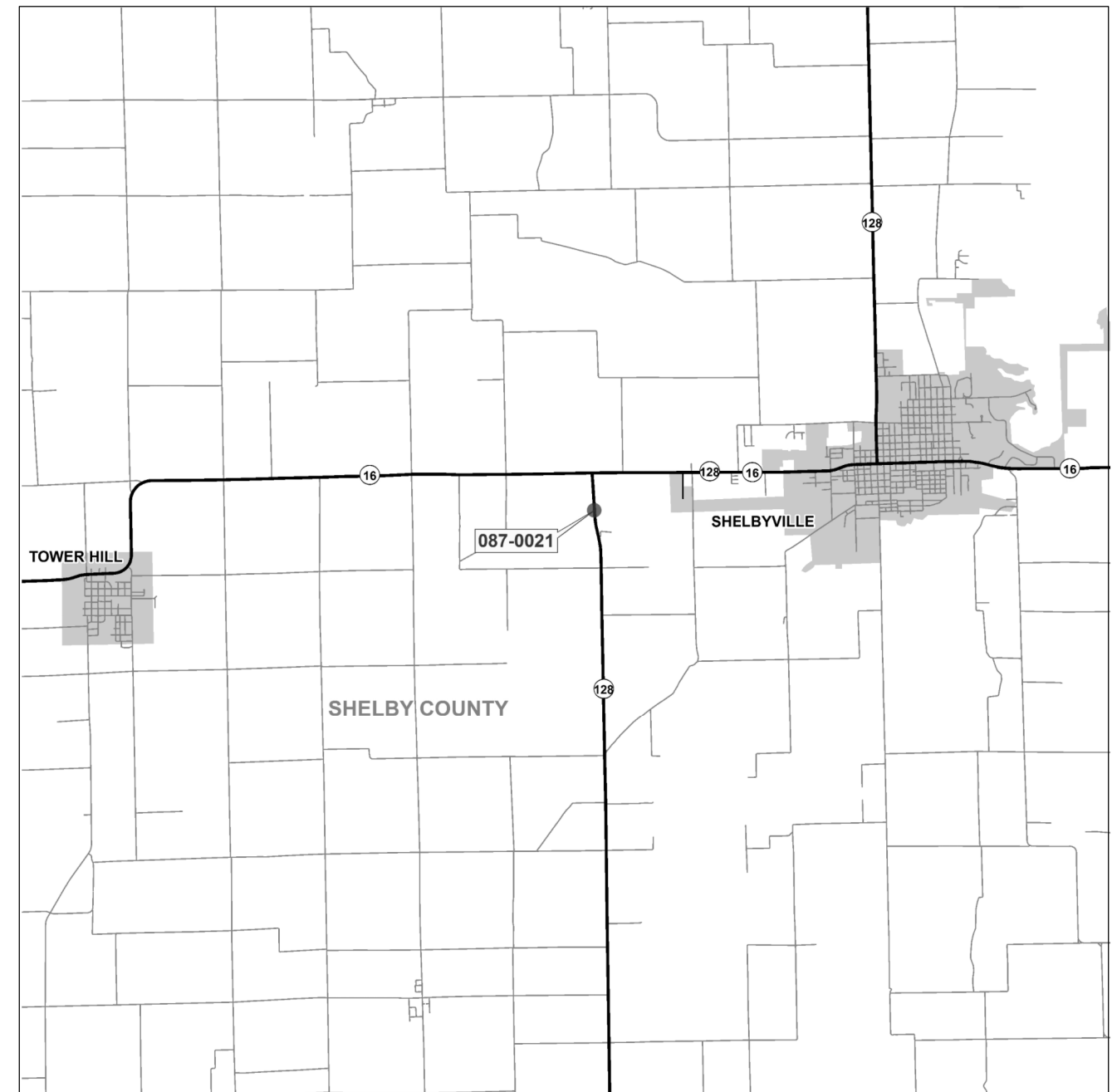
STRUCTURAL STEEL
S.B.I. RTE. 128 SEC. 121.51
SHELBY COUNTY
STA. 214+52.97



D7 BRIDGE PAINTING 2016-3
S.N. 070-0002
MOULTRIE COUNTY



D7 BRIDGE PAINTING 2016-3
S.N. 087-0021
SHELBY COUNTY



FILE NAME =	USER NAME = steffenk	DESIGNED -	REVISED -
pw:\IL\084EBID\TEG\illinois.gov\PWIDOT\Documents\DOT Offices\District 7\Projects\74683\DRAWING\CAD\Sheets\D774683-sht-locations		DRAWN -	REVISED -
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/4/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE LOCATION MAPS

SCALE: N/A SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320 774	D7 BRIDGE PAINTING 2016-3		10	10
CONTRACT NO. 74683				
<small>ILLINOIS FED. AID PROJECT</small>				

• MOULTRIE & SHELBY