

F.A.P. RTE. 749	SECTION D7 BRIDGE PAINTING 2015-	COUNTY ILLINOIS	TOTAL SHEETS 10	SHEET NO. 1
			CONTRACT NO. 74683	

• MOULTRIE & SHELBY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

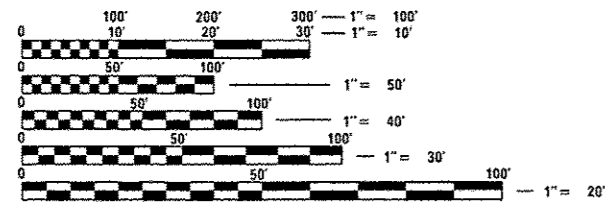
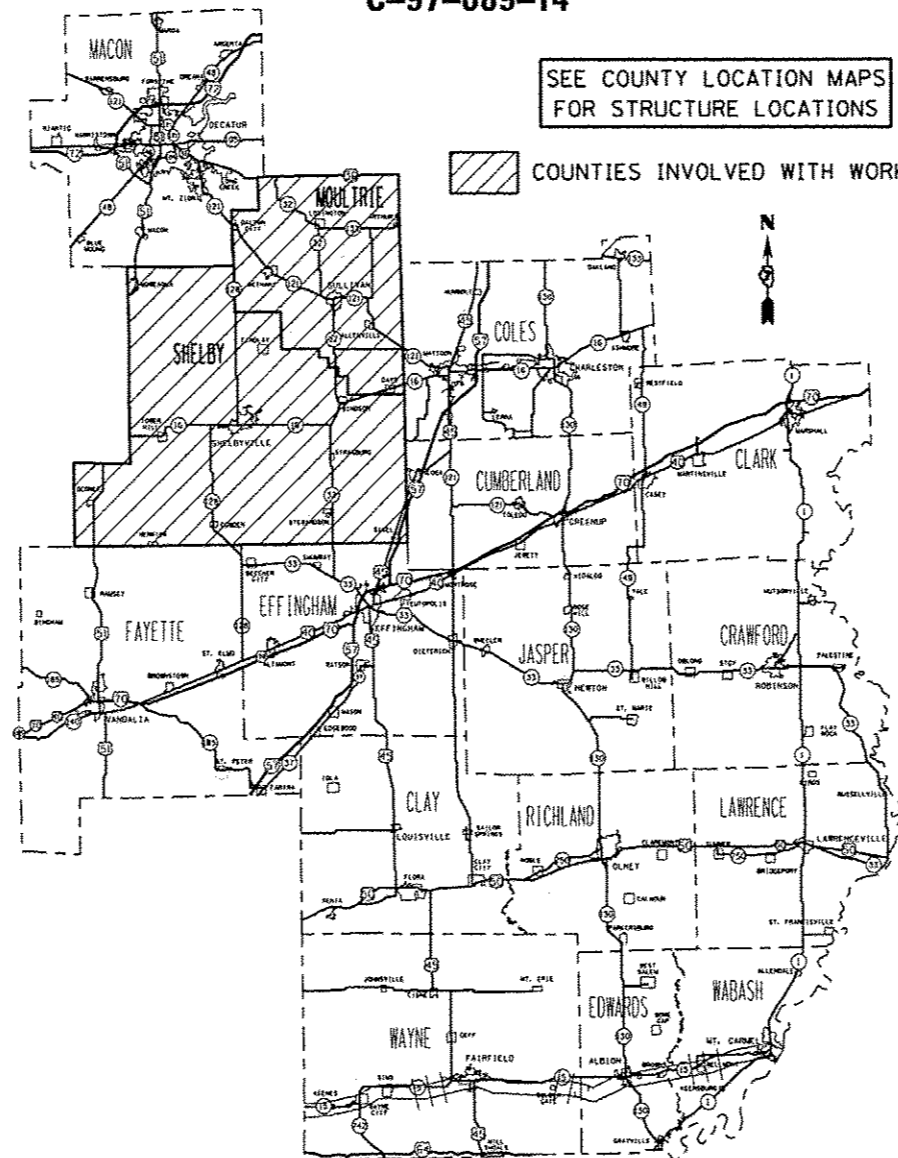
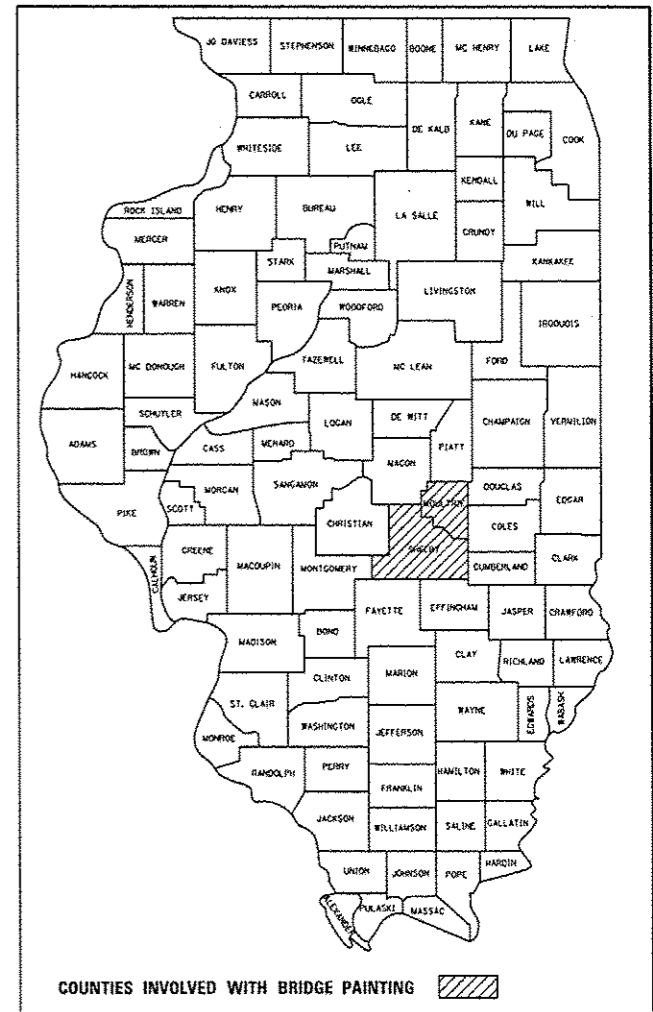
F.A.P. ROUTES 320 & 774 (IL RTE. 121 & IL. RTE 128)  
SECTION D7 BRIDGE PAINTING 2015-1

**BRIDGE PAINTING  
MOULTRIE & SHELBY COUNTIES**

C-97-089-14

FOR INDEX OF SHEETS, SEE SHEET NO. 2

ADT =



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.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 July 31 20 14  
Roger L. Orishell / RO  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Oct 17 20 14  
John D. Baranzelli, PE / JB  
acting ENGINEER OF DESIGN AND ENVIRONMENT

Oct 17 20 14  
Omer Osman, PE / OO  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

## INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS, GENERAL NOTES & LOCATION DESCRIPTIONS
3	SUMMARY OF QUANTITIES
4-9	EXISTING STRUCTURE PLANS
10	LOCATION MAPS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 10:

STD. NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701001-02	OFF-ROAD OPERATIONS, 2L2W, 15' MINIMUM AWAY FROM PAVEMENT EDGE
701006-05	OFF-ROAD OPERATIONS, 2L2W, 15' AWAY TO EDGE OF PAVEMENT
701201-04	LANE CLOSURE, 2L2W, DAY ONLY
701901-03	TRAFFIC CONTROL DEVICES

## GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2012; THE SUPPLEMENTAL SPECIFICATIONS, THE RECURRING SPECIAL PROVISIONS, AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THE PROPOSED PROJECT IS LOCATED AT TWO LOCATIONS ON ILLINOIS ROUTES 121 AND 128 IN MOULTRIE AND SHELBY COUNTIES.

THE WORK INCLUDED IN THIS SECTION CONSISTS OF CLEANING AND PAINTING BRIDGES AT TWO LOCATIONS AS SPECIFIED ELSEWHERE IN THESE PLANS AND THE SPECIAL PROVISIONS.

THE STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED AS SPECIFIED IN THE SPECIAL PROVISIONS.

ALL DECK DRAINS SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THEIR OWN EXPENSE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL - OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

ONLY STRUCTURAL STEEL IS TO BE PAINTED. ALL OTHER SURFACES WILL BE PROTECTED FROM BEING PAINTED. ALL PAINT AND OVERSPRAY WILL BE REMOVED AT THE CONTRACTOR'S EXPENSE.

THE SSPC OP1 AND OP2 PAINTING CONTRACTOR CERTIFICATION WILL BE REQUIRED FOR THIS PROJECT.

## BRIDGE LOCATION DESCRIPTIONS

### LOCATION #1

ROUTE: FAP 320  
 MARKED: ILL 121  
 SECTION: 103BR  
 STATION: 399+37.25  
 STRUCTURE NUMBER: 070-0002

TYPE OF BRIDGE: Wide Flange I Beams-6 Spans (6 Beams)  
 LOCATION: Southeast of Bethony  
 FEATURE CARRIED/SPANNED: ILL 121 over the West Okaw River

COLOR OF THE FINISH COAT SHALL BE GRAY, MUNSELL 5B 7/1.

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All structural steel within 5' (measured along the beam) of the abutments and any expansion joints at piers, including beams, bearings and diaphragms, shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. Both fascia beams shall be painted in their entirety, for the entire length of the beams, and they shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning.

The designated areas cleaned per Near White Metal Blast Cleaning - SSPC-SP10 shall be painted according to the requirements of Paint System 1 - OZ/E/U.

One air monitor will be required at this location.

### LOCATION #2

ROUTE: FAP 774  
 MARKED: ILL 128  
 SECTION: 101VB-1  
 STATION: 21+52.97  
 STRUCTURE NUMBERS: 087-0021

TYPE OF BRIDGES: Wide Flange I Beams-3 Spans (6 Beams)  
 LOCATION: 0.5 miles south of Illinois Route 16  
 FEATURE CARRIED/SPANNED: ILL 128 over CNRL RR (Abandoned)

COLOR OF THE FINISH COAT SHALL BE GREEN, MUNSELL 10B 3/6 FOR ALL BEAMS.

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All structural steel within 5' (measured along the beam) of the abutments, including beams, bearings and diaphragms, shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The entire outside and bottom of the bottom flange of both fascia beams, for the entire length of the beams, shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning.

The designated areas cleaned per Near White Metal Blast Cleaning - SSPC-SP10 shall be painted according to the requirements of Paint System 1 - OZ/E/U.

One air monitor will be required at this location.

FILE NAME :	USER NAME : astaffennk	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, GENERAL NOTES AND BRIDGE LOCATION DESCRIPTIONS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwork\pudot\astaffennk\d039705610	74683-ent-index.dgn	DRAWN -	REVISED -			774	D7 BRIDGE PAINTING 2015-1	*	10	2	
Default	PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED -			CONTRACT NO. 74683					
	PLOT DATE = 8/4/2014	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

\* MOULTRIE & SHELBY

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

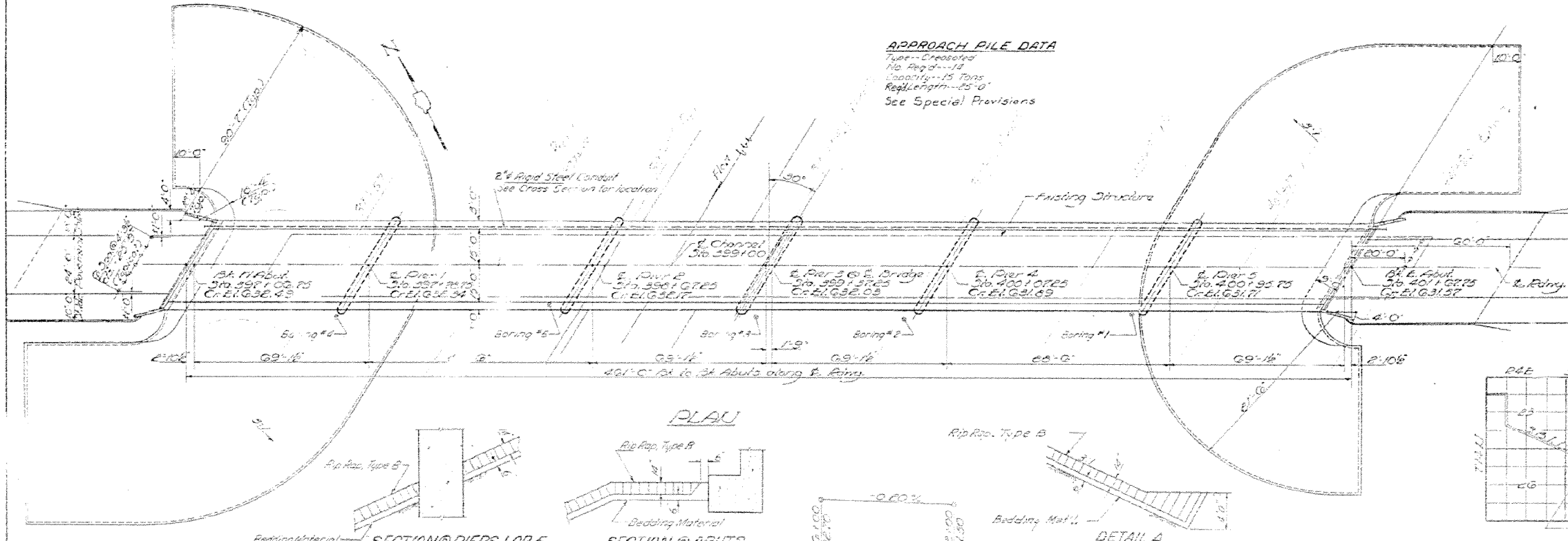
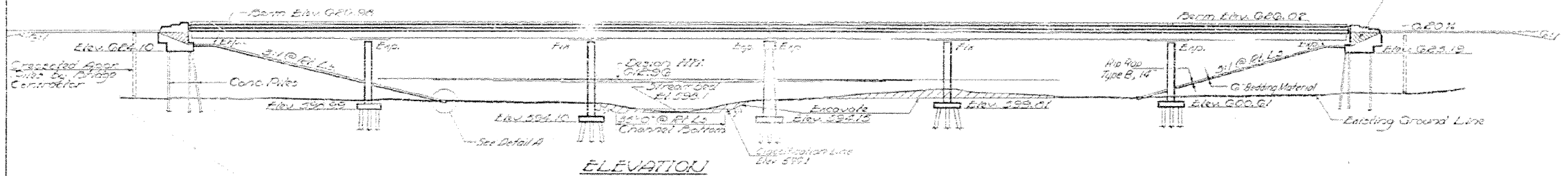


1.1. Channel 7 on NW corner of West Abutment. Elev. 626.14.  
 Existing Structure: RC deck girder, 7 spans @ 61'-2".  
 Concrete Substructure: Superstructure and portions of substructure which interfere with construction are to be removed by Bridge Contractor before new construction. No Salvage.

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

NO. 1039R	1039R	1039R	1039R	1039R
1039R	1039R	1039R	1039R	1039R

SHEET NO. 1  
 14 SHEETS



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

**WATERWAY INFORMATION**  
 Drainage Area 10000 Sq. Ft.  
 Channel Level, Selling Cultivated  
 Required Opening 130 sq. ft. @ 2' H.  
 Present Opening 8000 sq. ft.  
 Proposed Opening 2774 sq. ft.  
 Capacity Below Elev. 598.0  
 Lett. Water Elev. 598.1  
 Reservoir Design Stage Elev. 626.5

**DESIGN STRESSES**  
 F<sub>c</sub> = 14000 p.s.i. Super & Sub.  
 F<sub>s</sub> = 25,000 p.s.i. Piles  
 F<sub>s</sub> = 20,000 p.s.i. Struct.  
 n = 10  
 Allowable 4. Defl. 4/1000 Composite  
 LOADING HS20-44

DESIGNED	EMMY J. STARK	DATE	DEC 13 1963
CHECKED	R. J. TAYLOR	EXAMINED	H. E. EDWARDS
DRAWN	E. S. W. L. J.	PASSED	[Signature]
CHECKED	R. J. TAYLOR	APPROVED	U. E. RAY

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

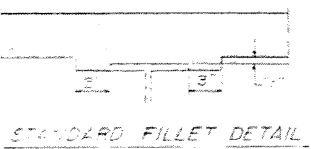
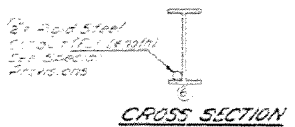
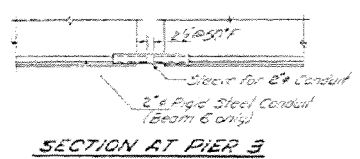
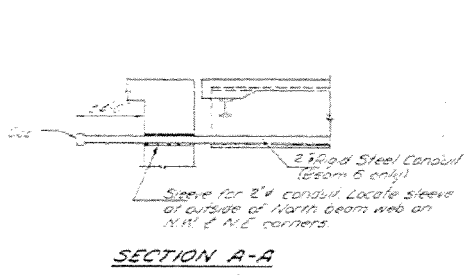


STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

DATE	NO.	BY	CHKD.	APP'D.
11/22/11	1022	M. J. ...	...	...

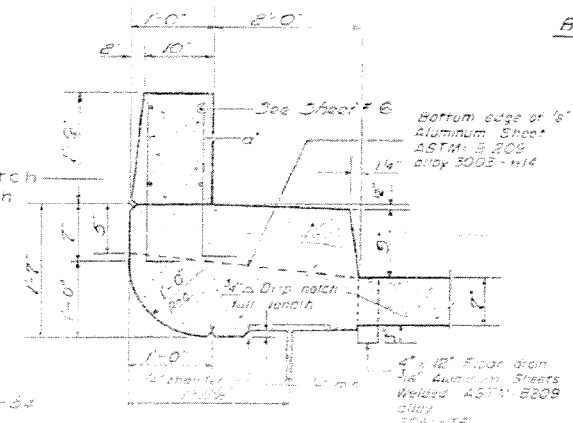
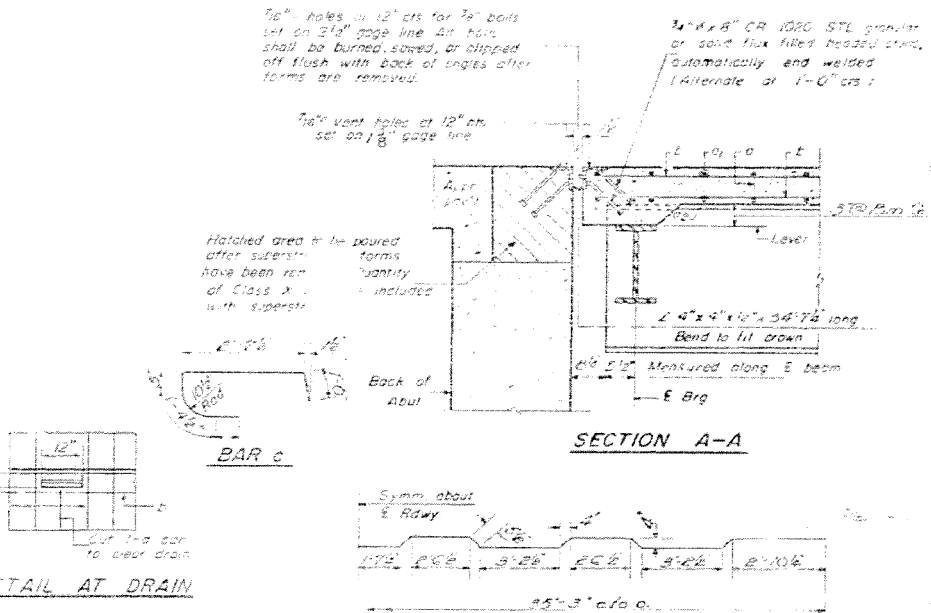
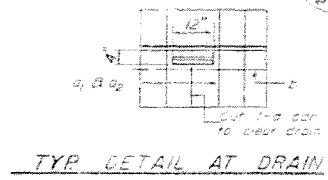
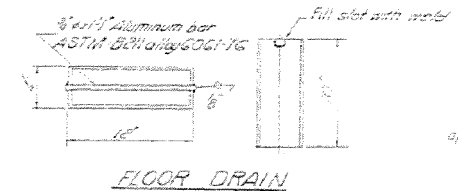
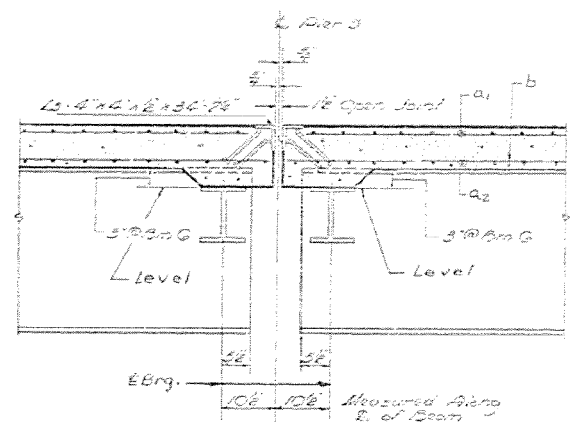
Sheet No. 5  
14 sheets

When this 2, 3, 4, 5 etc indicates  
bars with lengths per line  
etc = 20' etc



After a structural steel has been  
cut, the ends of the cut lengths of the beams  
and girders shall be finished as shown on sheets 11/12.  
The fillets shall be finished from the "Grade Elevations"  
and "Clearance Elevations" shown on sheets 11/12.  
The fillet shall be finished to the full height of  
the beam or girder.

EMERSON T. ...  
DESIGNED BY  
DRAWN BY  
CHECKED BY  
DATE 7-2-62 Rev. 11-5-62

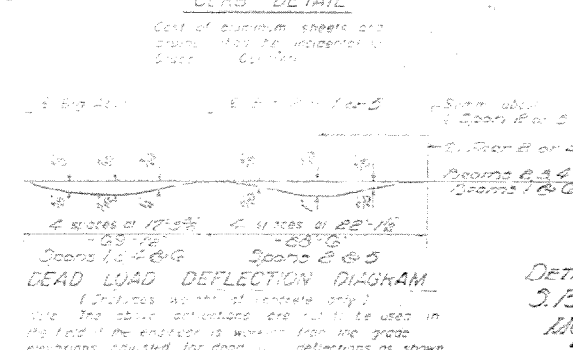
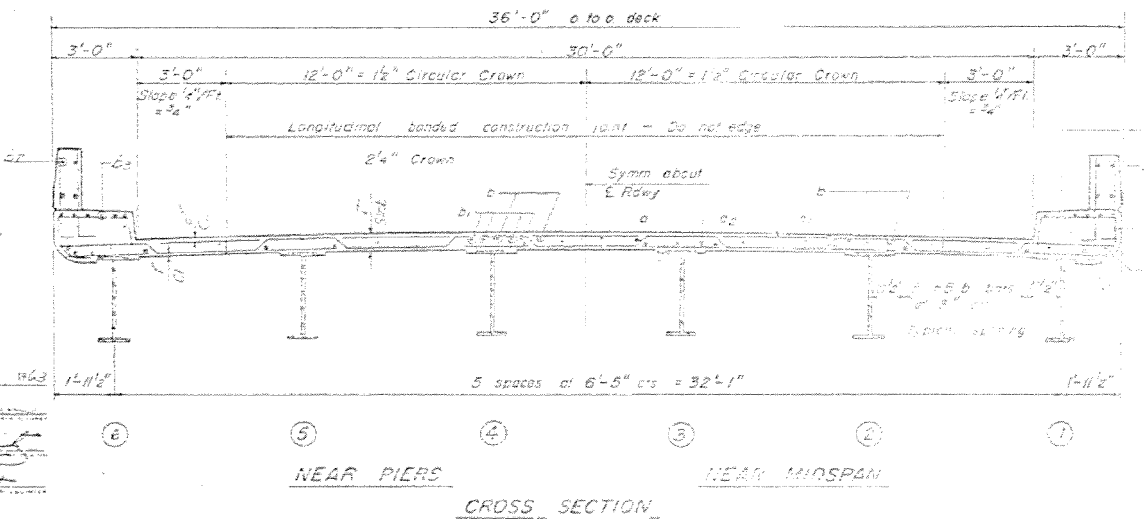


BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	334	#6	36'-0"	---
b	302	#6	30'-0"	---
c	302	#6	30'-0"	---
d	300	#5	33'-7"	---
e	192	#6	25'-3"	---
f	98	#6	30'-0"	---
g	96	#6	11'-3"	---
h	40	#6	33'-3"	---
i	120	#5	11'-4"	---
j	64	#5	15'-1"	---
k	64	#5	11'-3"	---
l	16	#5	35'-0"	---

Reinforcement steel 114 1,465  
Structural Steel 114 468,820  
Class A Concrete 200 503.4

Weight of rebar essential with  
lead plates and stirrups are  
included in the steel  
cost of 13,990



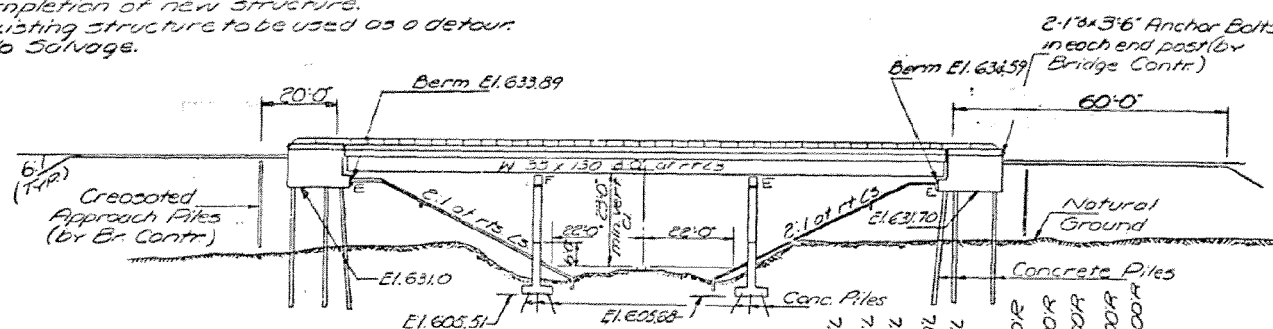
SUPERSTRUCTURE  
DETAILS & BILL OF MATERIAL  
S.B. 1. RT. 132-SEC. 103-PR  
MOULTRIE COUNTY  
STA. 399 + 37.25

ADDED 4-0-66 CONDUIT DETAILS AND SEC. A-A, USE AT PIER 3, BEAM 6 CROSS SEC. SHOWING PLACING OF CONDUIT.  
NRF

B.M. R.R. Spike in timber bridge column, Existing  
Elev. 631.0  
Sta. 21+52.90 in 1925. Superstructure is R.C. 3000  
concrete beams, with reinforced concrete deck  
and 18" x 18" Ek. columns on a water table.  
Contractor shall remove exist. structure, after  
completion of new structure.  
Existing structure to be used as a detour.  
No Salvage.

**GENERAL NOTES**

1. All reinforcement bars shall be lapped 24 diameters unless otherwise shown.  
2. Fasteners shall be high strength bolts. Bolts 3/4"; open holes 1 1/8" unless otherwise noted.  
3. Calculated weight of Structural Steel = 139,170 Lbs.  
4. 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.  
5. Anchor bolts shall be set before bolting diaphragms over supports.  
6. 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.  
7. The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.  
8. 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.  
9. The basic lead silico chromate paint system shall be used for shop and field painting of Structural Steel.  
10. Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100 sq. ft.  
11. Concrete piles at Abuts. shall be driven in holes pre-cored through the embankment in accordance with Article 51309(c) of the Standard Specifications.

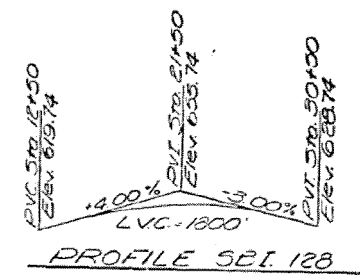


**APPROACH PILE DATA**

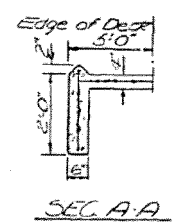
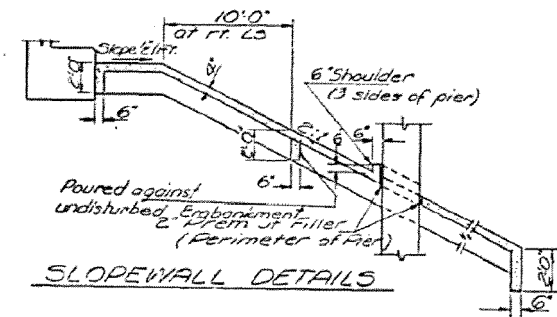
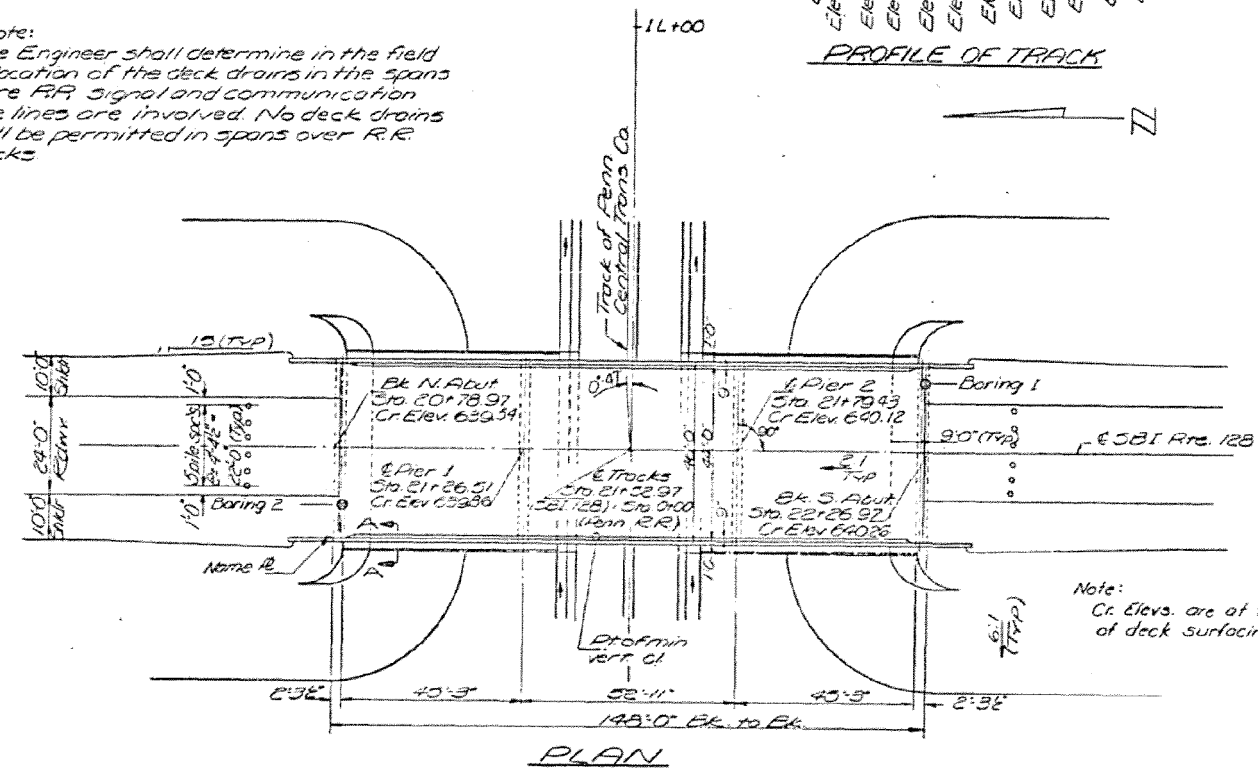
Type:	Crested
No. Req'd:	12
Length:	30'

**ELEVATION**

Station	Elevation
East	
Elev. 61.66	300L
Elev. 61.08	400L
Elev. 61.62	500L
Elev. 61.50	200L
Elev. 61.61	100L
Elev. 61.79	0
Elev. 61.97	100R
Elev. 61.59	200R
Elev. 61.79	300R
Elev. 61.13	400R
Elev. 61.93	500R
West	



Note:  
The Engineer shall determine in the field the location of the deck drains in the spans where RR 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

**TOTAL BILL OF MATERIAL**

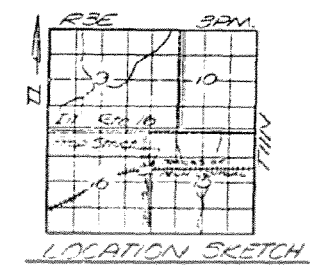
Item	Unit	Super	Sub	Total
Structure Excavation	Cu Yd		135	135
Protective Coat	Sq. Yd	130		130
Class X Concrete	Cu Yd	209.5	251.1	455.6
Structural Steel	L.S.	L.S.		L.S.
Aluminum Rolling	Lin Ft.	332		332
Reinforcement Bars	Pound	51670	25220	76,890
Concrete Piles	Lin Ft.		2136	2136
Test Piles (Concrete)	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
Coat or Interlayer Protective Coat	Sq. Yd	684		684

**INT. BEAM MOMENT TABLE**

Span	Pier	Span	Pier
4 Span (in)	6699	6699	6699
M <sub>1</sub> (ft)	1,845	1,445	1,445
M <sub>2</sub> (in)	215	350	157
M <sub>3</sub> (in)	316.0	243.4	301.7
Imp (ft)	91.7	70.6	67.5
M <sub>4</sub> (in)	622.7	664	546.2
f's (in)	18.46	19.68	16.19

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

**DESIGN STRESSES**  
f<sub>c</sub> = 1200 psi (Super) f<sub>c</sub> = 1400 (Curb, Parapet & Sub)  
f<sub>s</sub> = 20000 psi (Reinf.)  
f<sub>s</sub> = 20,000 psi (Struct.)  
v<sub>c</sub> = 75 psi (FFps)  
n = 10  
δ = Deflection 4/1000 non-simp.  
Design Specifications 1969 AASHTO (as applicable)

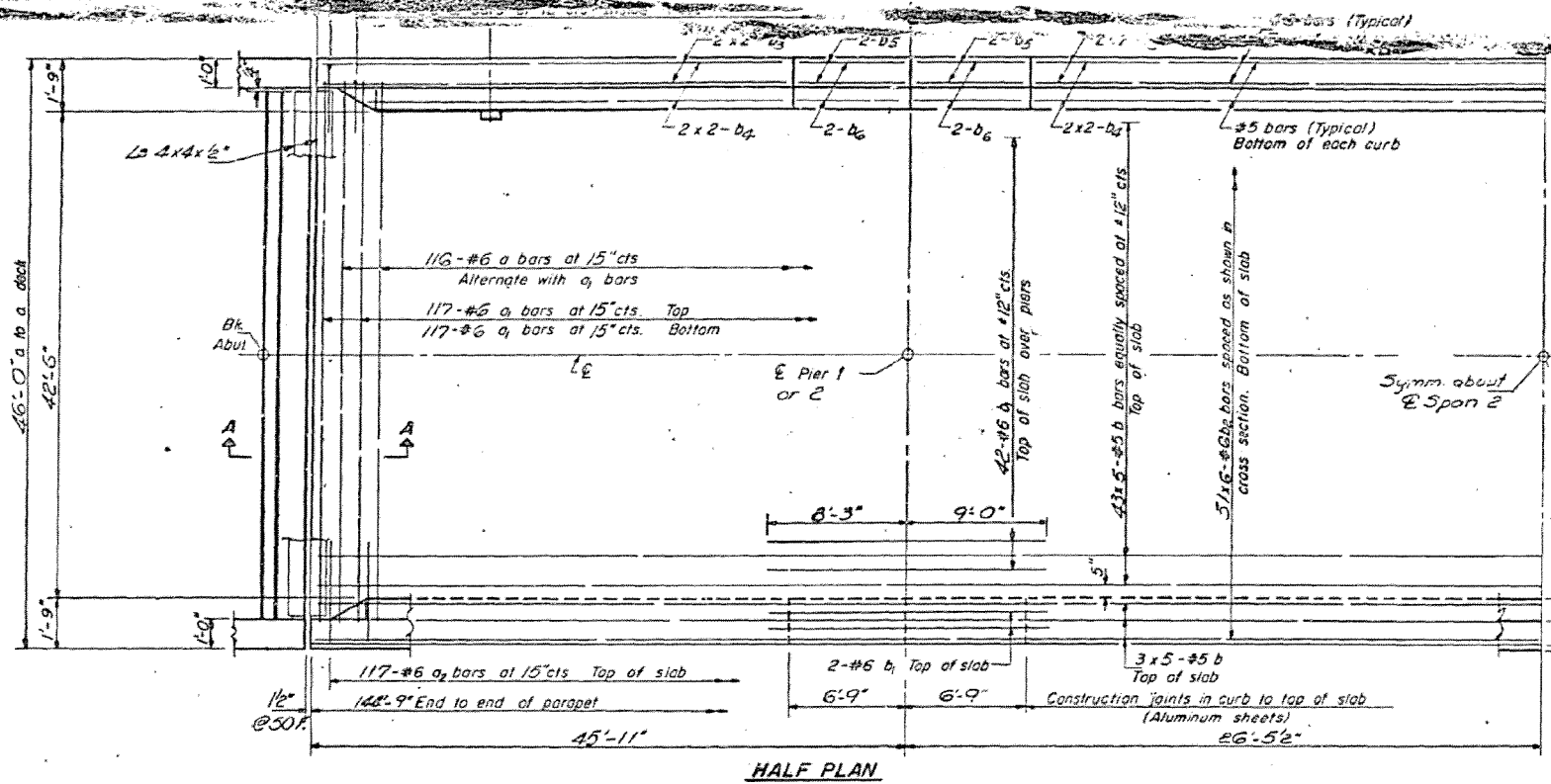


**GENERAL PLAN & ELEVATION**  
SBI. RT. 128 OVER TRACKS  
OF PENN CENTRAL  
TRANSPORTATION CO.  
SBI. RT. 128 SEC. 101 VB-1  
SHELBY COUNTY  
STA. 21+52.97

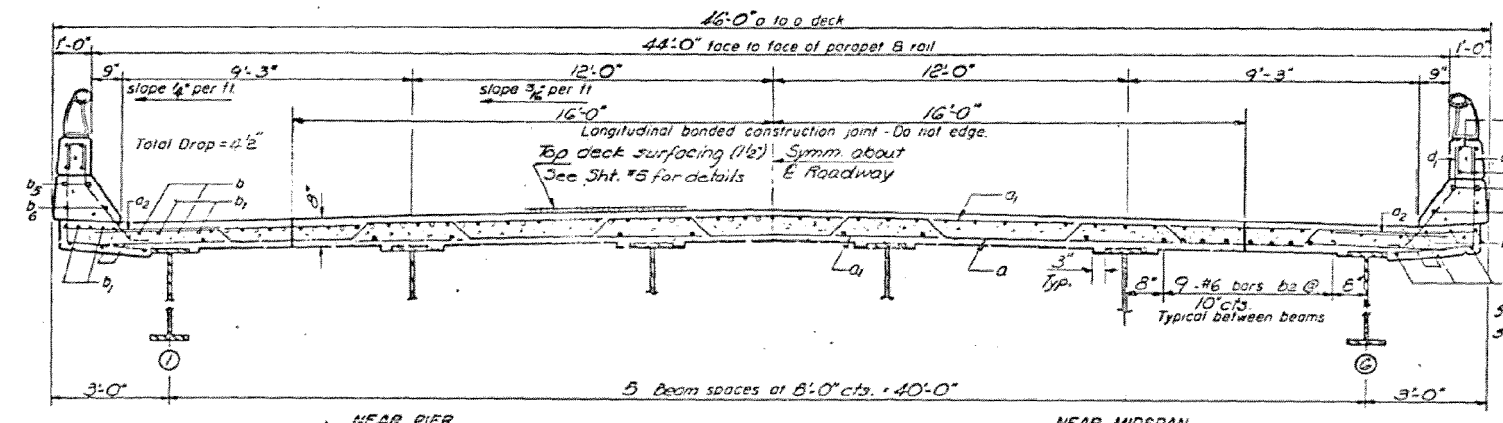
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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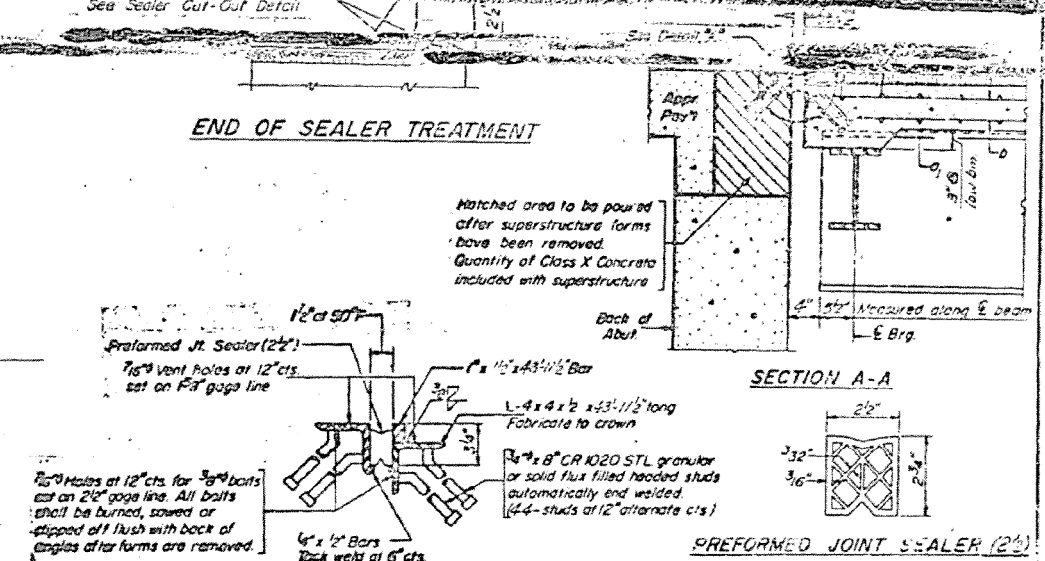
Note:  
Bars indicated thus 20 x 3 - #5 etc.  
indicates 20 bars of bars  
3" spacing  
bars = 24 dia



HALF PLAN

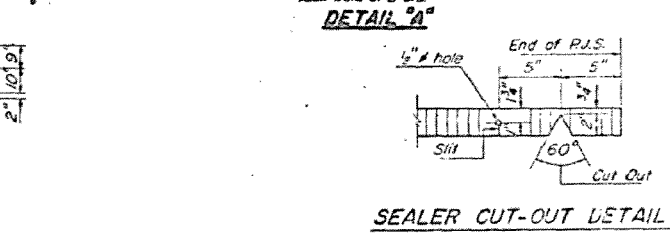


CROSS SECTION  
LOOKING SOUTH



END OF SEALER TREATMENT

SECTION A-A

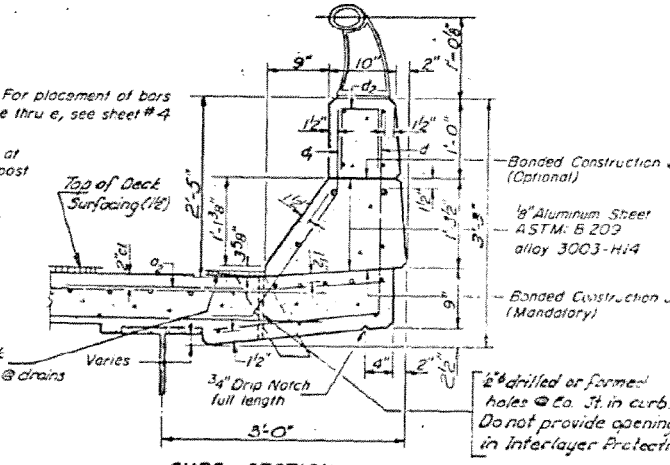


DETAIL 'A'

PREFORMED JOINT SEALER (2')

BILL OF MATERIAL

Bar	No	Size	Length	Notes
a	116	#6	15'-0"	
a	234	#6	44'-0"	
a2	234	#6	4'-0"	
b	2	#5	30'-0"	
b	92	#6	17'-3"	
b	306	#6	25'-0"	
b2	24	#6	20'-0"	
b	24	#5	20'-3"	
b2	2	#6	6'-6"	
b2	2	#5	6'-6"	
c	2	#5	30'-0"	
c	250	#5	2'-0"	
c	256	#5	5'-0"	
c	22	#4	2'-0"	
Reinforcement Bars				Lbs 3000
Class X Concrete				Cu Yds 125.5



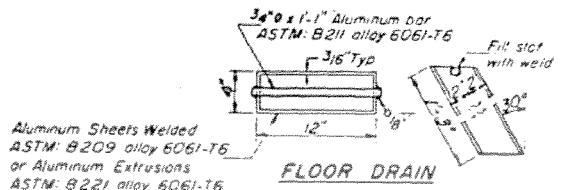
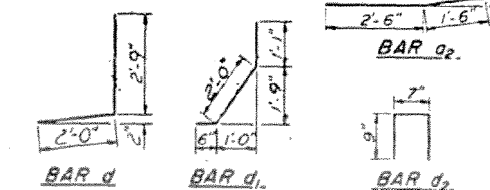
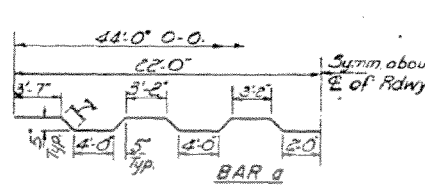
SEALER CUT-OUT DETAIL

CURB SECTION

DESIGNED: *Emilio*  
CHECKED: *Ch. T. C.*  
DRAWN: *A. Borrozo*  
CHECKED: *C. T. C.*

EXAMINED: *...*  
PASSED: *...*  
APPROVED: *...*

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

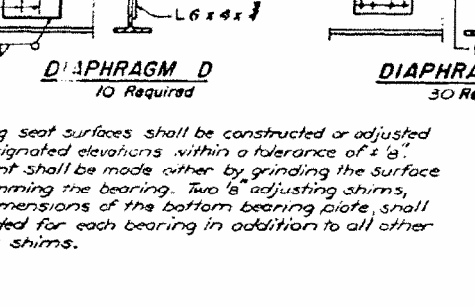
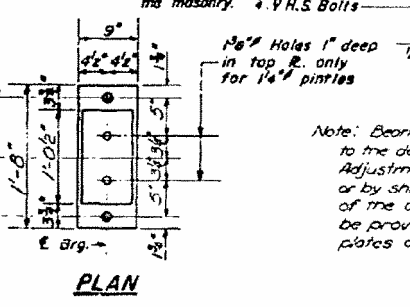
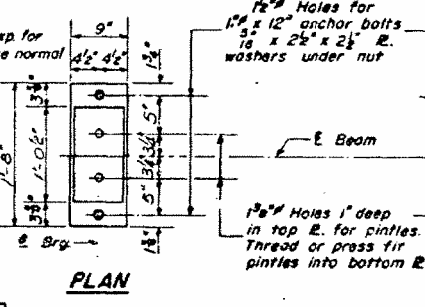
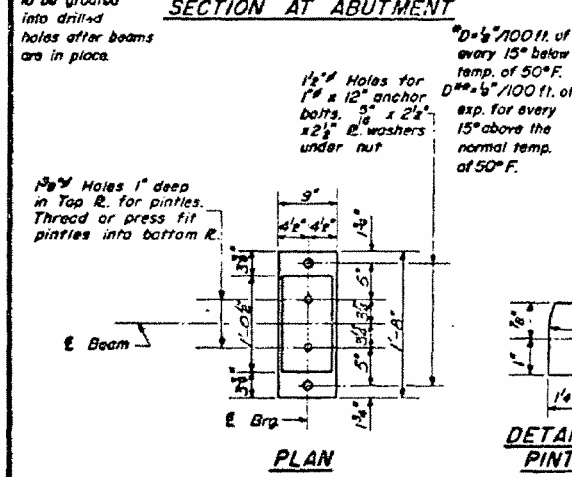
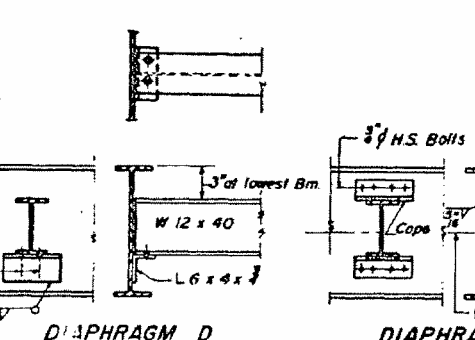
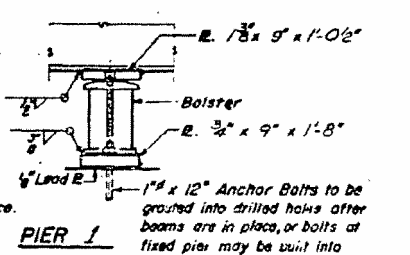
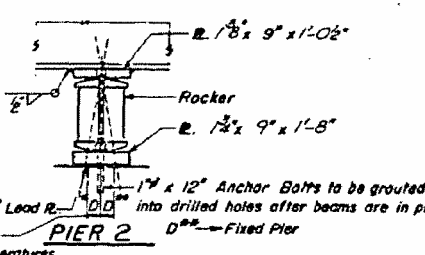
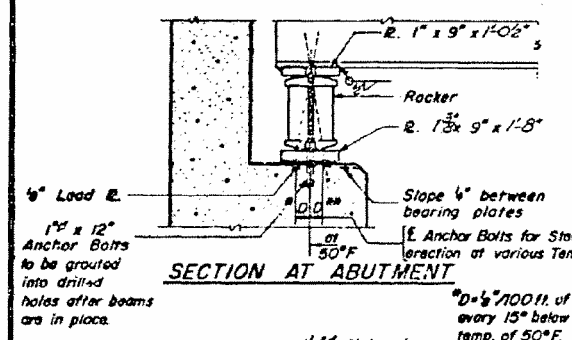
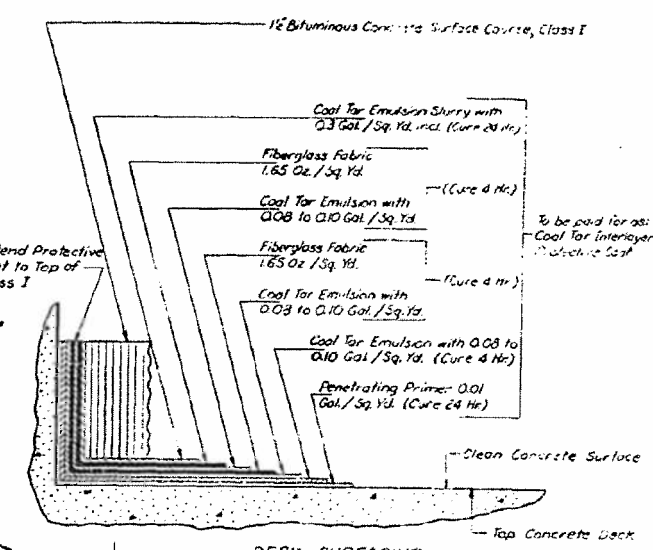
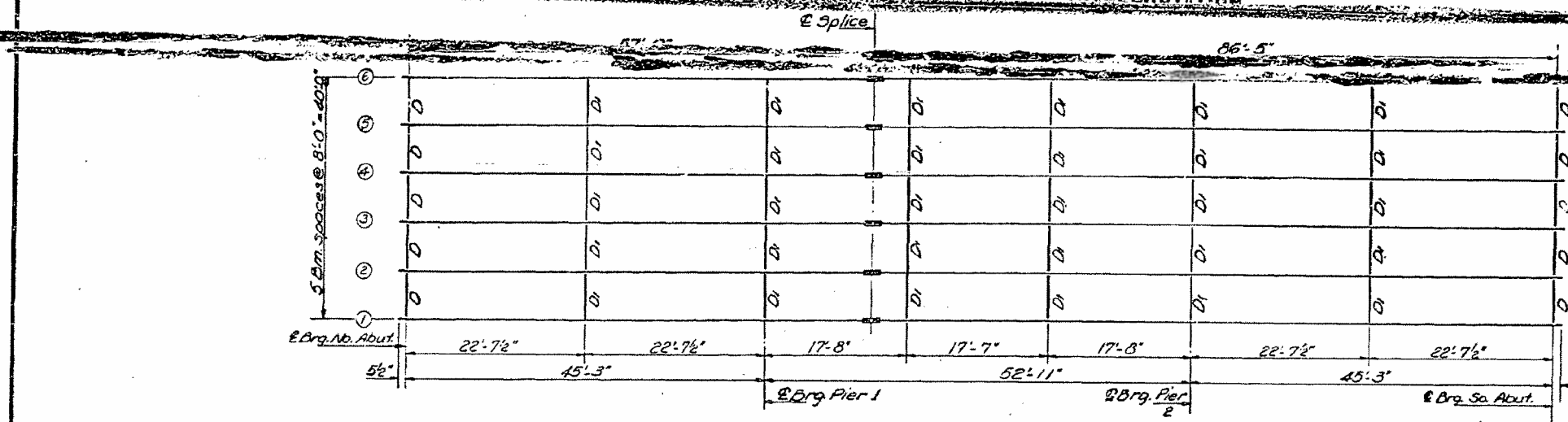


FLOOR DRAIN

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



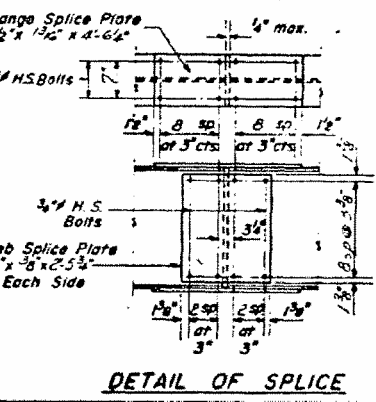
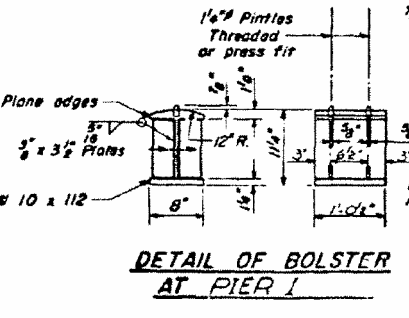
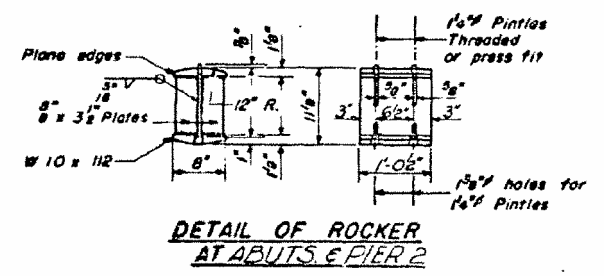


ELEVATION TOP OF W33x130

Item	Dim 166	Dim 225	Dim 250
E Brq. N. Abut.	635.40	636.57	636.69
E Brq. Pier 1	635.62	635.01	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

Note: Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ± 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.

DESIGNED: *Chris E. ...*  
 CHECKED: *Chi ...*  
 DRAWN: *A. Borrozo*  
 DATE: *12/1/07*

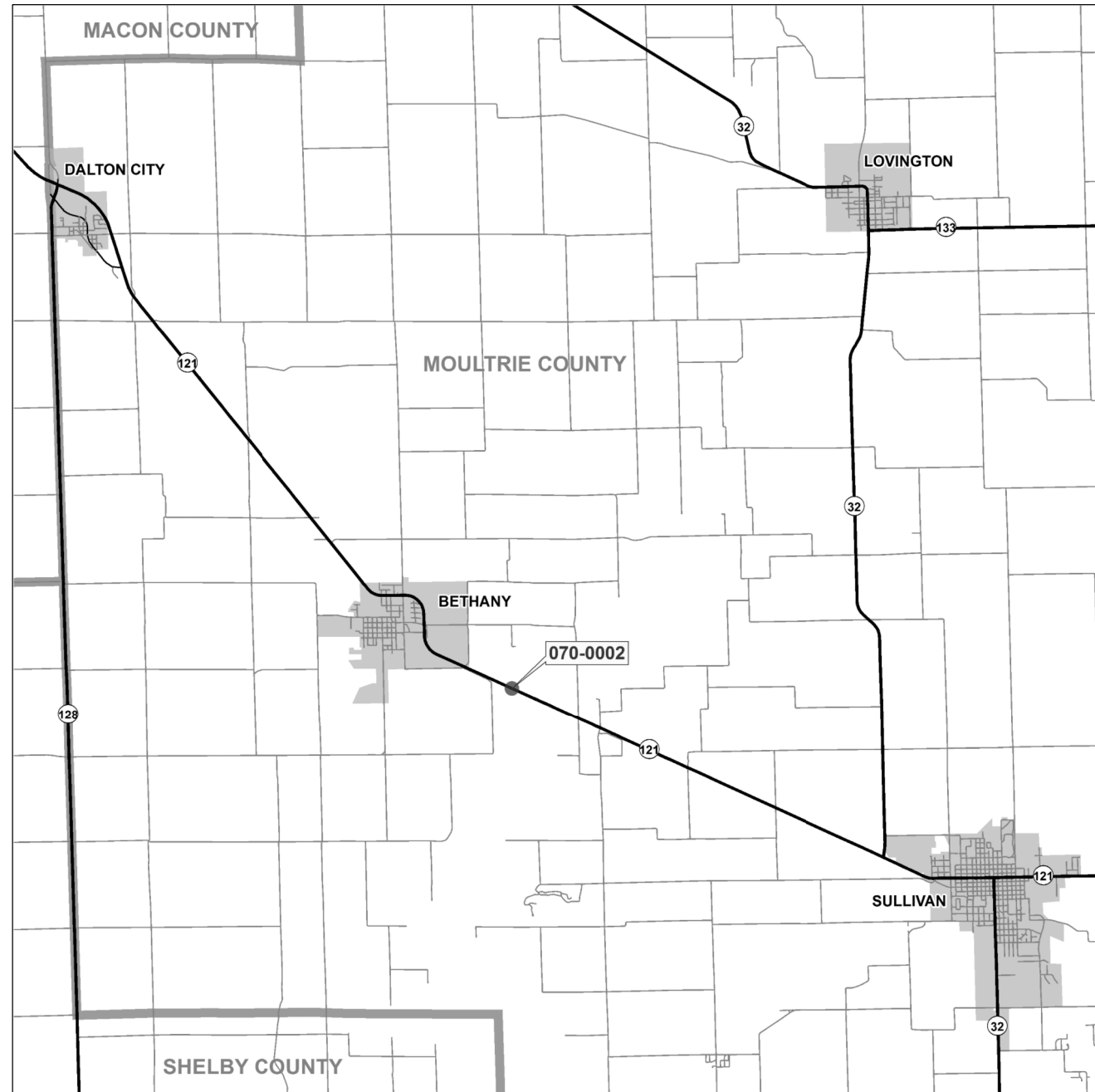


STRUCTURAL STEEL  
 S.B.I. RTE. 128 SEC. 101.51  
 SHELBY COUNTY  
 STA. 21+52.07

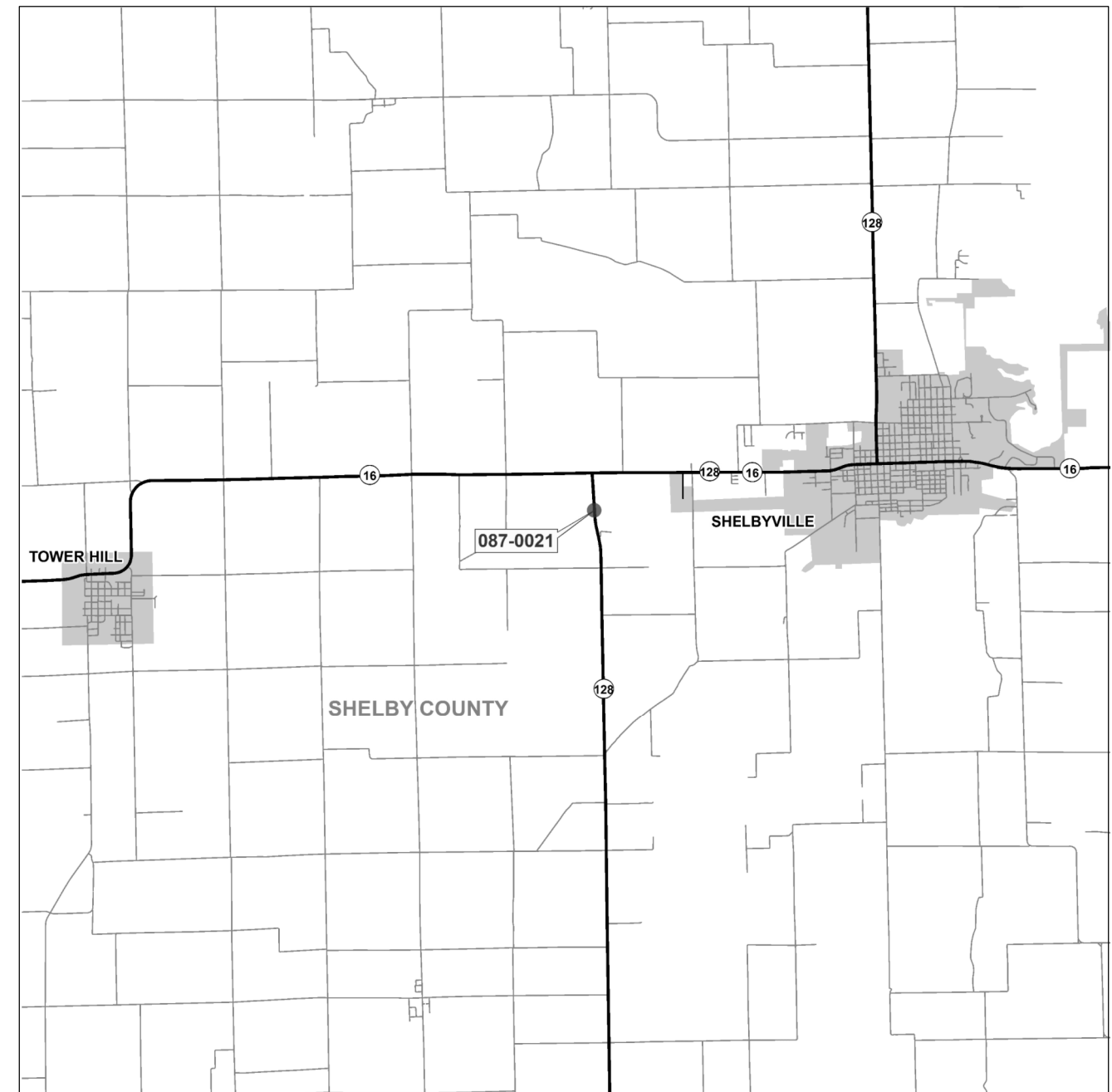
I-2    2-2-62    Rev 11-9-62    Rev 8-16-63    Rev 12-10-63    Rev 8-1-70



**D7 BRIDGE PAINTING 2015-1**  
**S.N. 070-0002**  
**MOULTRIE COUNTY**



**D7 BRIDGE PAINTING 2015-1**  
**S.N. 087-0021**  
**SHELBY COUNTY**



FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -
c:\pw\work\p\dot\stevfenmk\d0397056\074683-sht-locations.dgn		DRAWN -	REVISED -
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/4/2014	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BRIDGE LOCATION MAPS**

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

• MOULTRIE & SHELBY				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320 774	D7 BRIDGE PAINTING 2015-1		10	10
CONTRACT NO. 74683				
ILLINOIS FED. AID PROJECT				