

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D7	BRIDGE PAINTING 2023-4	ILLINOIS	16	1
CONTRACT NO. 74B56				

• FAI 70 & FAS 2793  
• FAYETTE AND EFFINGHAM

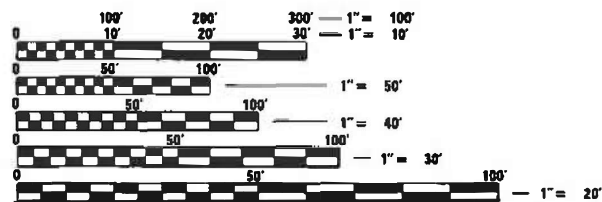
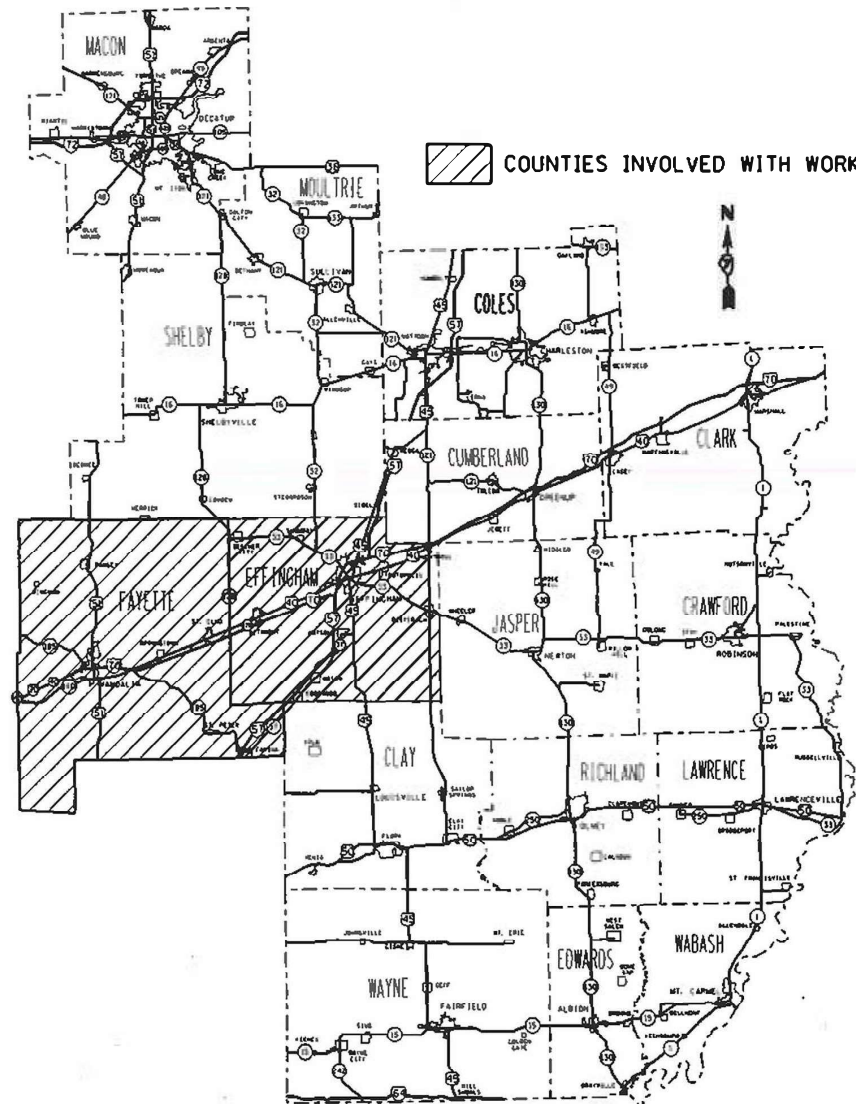
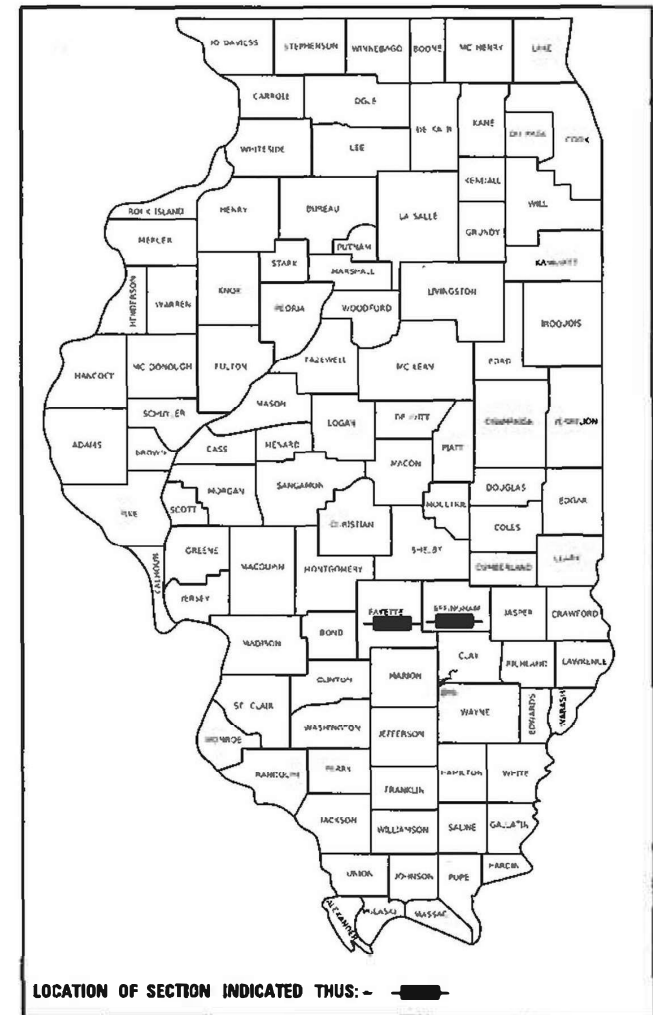
D-97-077-22

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED  
HIGHWAY PLANS

FAI 70 (I 70) & FAS 2793 (OLD IL 140)  
SECTION D7 BRIDGE PAINTING 2023-4  
PROJECT STP-OJY1(348)  
BRIDGE PAINTING  
FAYETTE AND EFFINGHAM COUNTY

C-97-128-22



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: MATT BOWER  
PROJECT MANAGER: TUCKER RIEMAN  
PHONE: (217)342-8359  
CONTRACT NO. 74B56

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED *February 9 20 23*  
*Jeffrey P. Myrland*  
REGIONAL ENGINEER

March 24, 2023  
*Scott A. Etkin*  
ENGINEER OF DESIGN AND ENVIRONMENT

March 24, 2023  
*Stephen M. Lewis*  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS, GENERAL NOTES, LOCATION DESCRIPTIONS
3	SUMMARY OF QUANTITIES
4-5	LOCATION MAP
6-16	EXISTING STRUCTURE PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER THE LAST NUMBERED SHEET.

001006	DECIMAL OF AN INCH AND OF A FOOT
000001-08	STANDARD SYMBOLS, ABBREVIATIONS, & PATTERNS
643001-02	SAND MODULE IMPACT ATTENUATORS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701101-05	OFF-ROAD OPERATIONS, MULTI-LANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTI-LANE, MORE THAN 15' AWAY
701201-05	LANE CLOSURE, 2L, 2W, FOR SPEEDS >= 45 MPH
701400-11	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-13	LANE CLOSURE, FREEWAY/EXPRESSWAY
701402-12	LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER

LOCATION #2

BRIDGE # 2  
 ROUTE: FAI 70  
 MARKED: I 70  
 SECTION: 26-2VB  
 STATION: 482+95.58  
 STRUCTURE NUMBER: 026-0015, CARRYING I-70 OVER RAILROAD

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, on all beams, bearings, and diaphragms, within 5' (measured along the beam) of the abutments and any expansion joints shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The outside and bottoms of both fascia beams, for the entire length of the beams, shall be cleaned in their entirety 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.

Four air monitors will be required at this location.

LOCATION #1

BRIDGE # 1  
 ROUTE: SBI 11  
 MARKED: IL 140  
 SECTION: Y-BR  
 STATION: 473+11  
 STRUCTURE NUMBER: 026-0098, CARRYING IL 140 OVER OWL CREEK

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

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, on all beams, bearings, and diaphragms, within 5' (measured along the beam) of the abutments and any expansion joints shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The outside and bottoms of both fascia beams, for the entire length of the beams, shall be cleaned in their entirety 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.

No air monitors will be required at this location.

LOCATION #3

BRIDGE # 3  
 ROUTE: FAI 70  
 MARKED: I 70  
 SECTION: 26-2VB  
 STATION: 482+95.58  
 STRUCTURE NUMBER: 026-0016, CARRYING I-70 OVER RAILROAD

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, on all beams, bearings, and diaphragms, within 5' (measured along the beam) of the abutments and any expansion joints shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The outside and bottoms of both fascia beams, for the entire length of the beams, shall be cleaned in their entirety 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.

Four air monitors will be required at this location.

GENERAL NOTES

THE PROPOSED PROJECT IS LOCATED AT 4 LOCATIONS: ON IL 140 AND INTERSTATE 70 IN FAYETTE AND EFFINGHAM COUNTY IN DISTRICT 7.

THE WORK INCLUDED IN THIS SECTION CONSISTS OF CLEANING AND PAINTING THE BRIDGES AS SPECIFIED IN THE PLANS AND SPECIAL PROVISIONS.

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

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.

LOCATION #4

BRIDGE #4  
 ROUTE: FAI ROUTE 70  
 MARKED: I-70  
 SECTION: 25-2HB-4  
 STATION: 1943+54.91  
 STRUCTURE NUMBER: 025-0045, CARRYING FUNKHOUSER ROAD OVER I-70

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, including beams, bearings, and diaphragms, shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". This structure contains lead paint.

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.

Two air monitors will be required at this location.

\*\*\* FAI 70 & FAS 2793

REV. - MS

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	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 2/8/2023	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, GENERAL NOTES,  
 AND BRIDGE LOCATIONS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	*	**	16	2
CONTRACT NO. 74856				
ILLINOIS FED. AID PROJECT				

\* D7 BRIDGE PAINTING 2023-4

\*\* EFFINGHAM & FAYETTE

80% FED  
20% STATE

80% FED  
20% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		0047 FAYETTE COUNTY	0047 EFFINGHAM COUNTY
67100100	MOBILIZATION	L SUM	1	0.75	0.25
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD	EACH	4		4
	701402				
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD	L SUM	1	1	
	701201				
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD	L SUM	1	0.75	0.25
	701401				
70107007	PAVEMENT MARKING BLACKOUT TAPE, 7"	FOOT	5200	3900	1300
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	3032	2274	758
70400100	TEMPORARY CONCRETE BARRIER	FOOT	300		300
70400125	PINNING TEMPORARY CONCRETE BARRIER	EACH	270		270
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	900		900
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1		1
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	3		3

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		0047 FAYETTE COUNTY	0047 EFFINGHAM COUNTY
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT	L SUM	1	1	
	CLEANING RESIDUES NO. 1				
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT	L SUM	1	1	
	CLEANING RESIDUES NO. 2				
Z0007103	CONTAINMENT AND DISPOSAL OF LEAD PAINT	L SUM	1	1	
	CLEANING RESIDUES NO. 3				
Z0007104	CONTAINMENT AND DISPOSAL OF LEAD PAINT	L SUM	1		1
	CLEANING RESIDUES NO. 4				
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1	
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1	1	
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM	1	1	
Z0010504	CLEANING AND PAINTING STEEL BRIDGE NO. 4	L SUM	1		1
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1	

\*\*\* FAI 70 & FAS 2793

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	DRAWN -	REVISED -
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PLOT DATE = 3/8/2023	DATE -	REVISED -

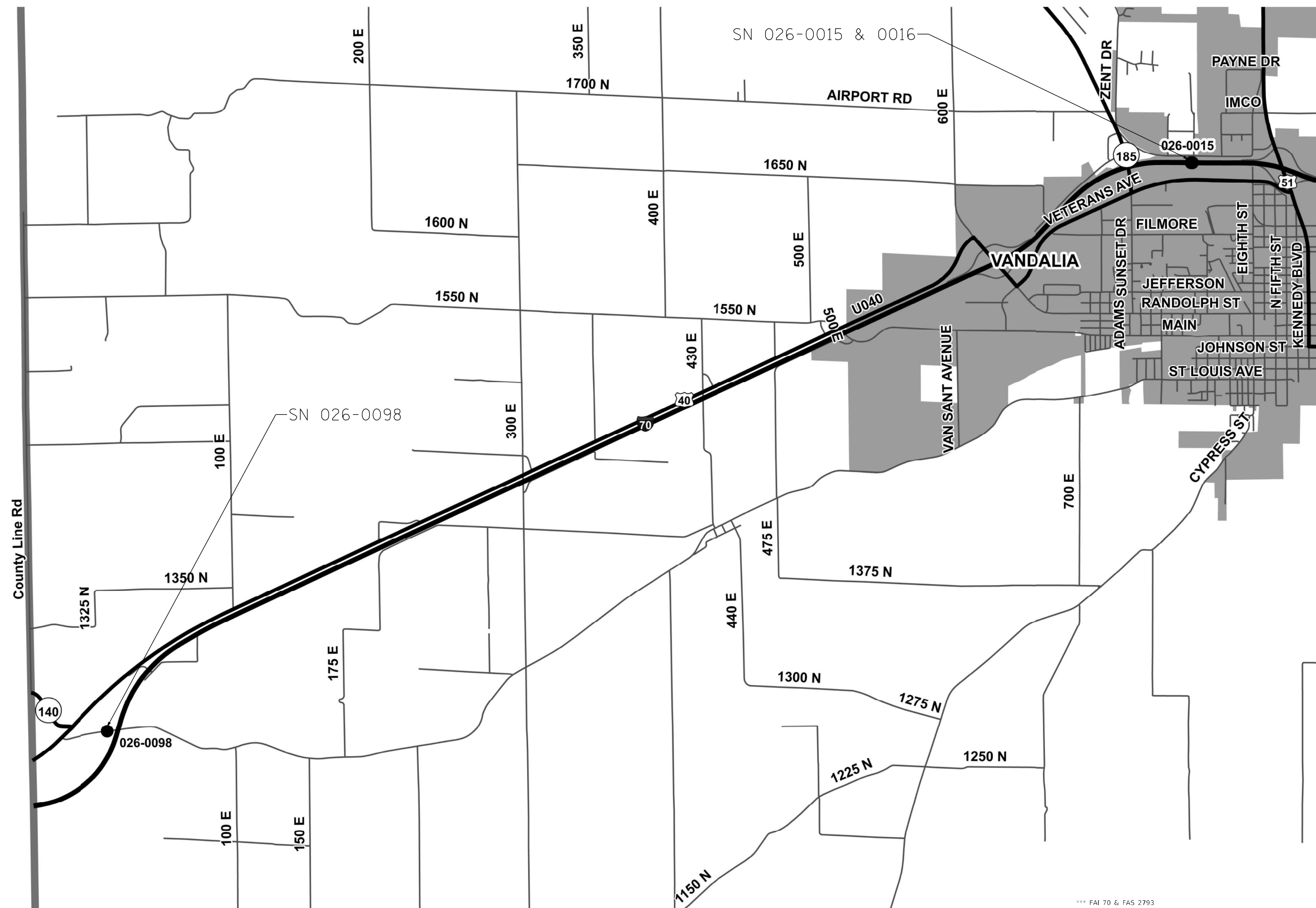
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 74B56				

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\*\*\* FAI 70 & FAS 2793

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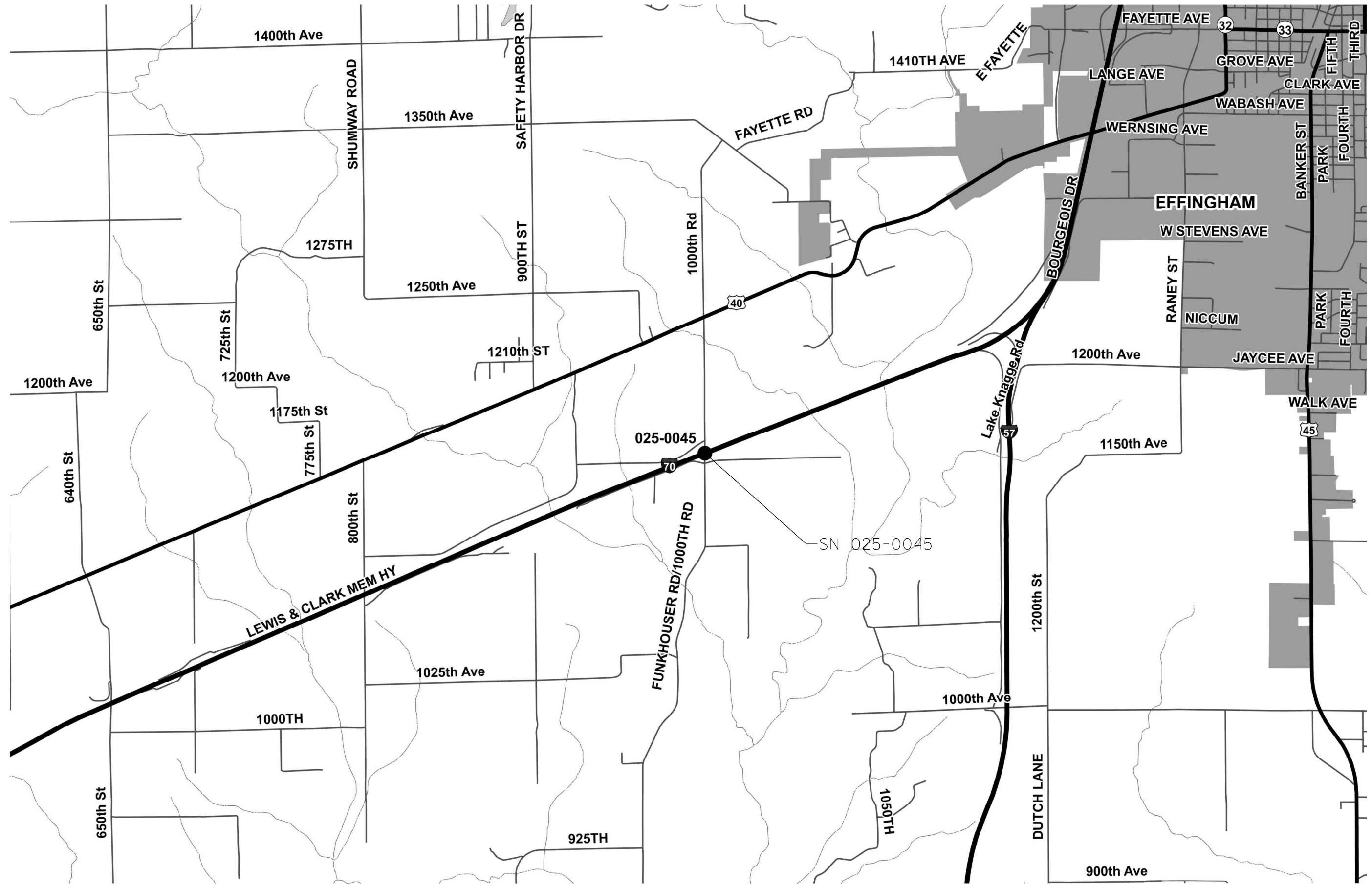
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**LOCATION 1, 2 & 3  
 SN 026-0015, 0016, 0098**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 74B56				

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	DRAWN -	REVISED -
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PLOT DATE = 2/8/2023	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>LOCATION 4</b>	
<b>025-0045</b>	
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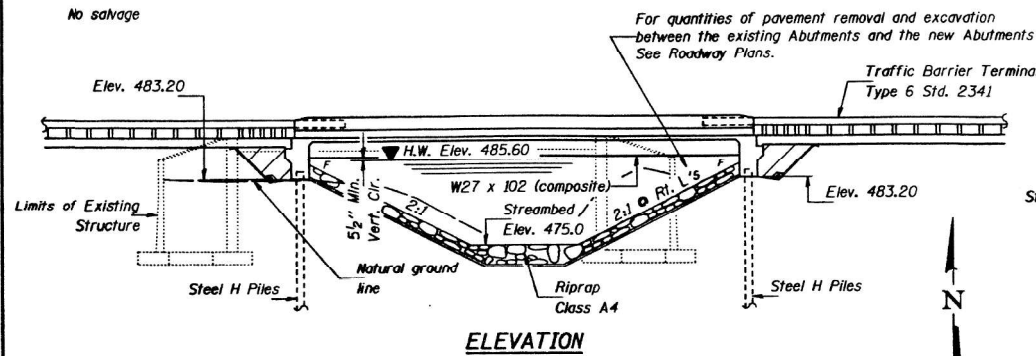
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CONTRACT NO. 74856				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

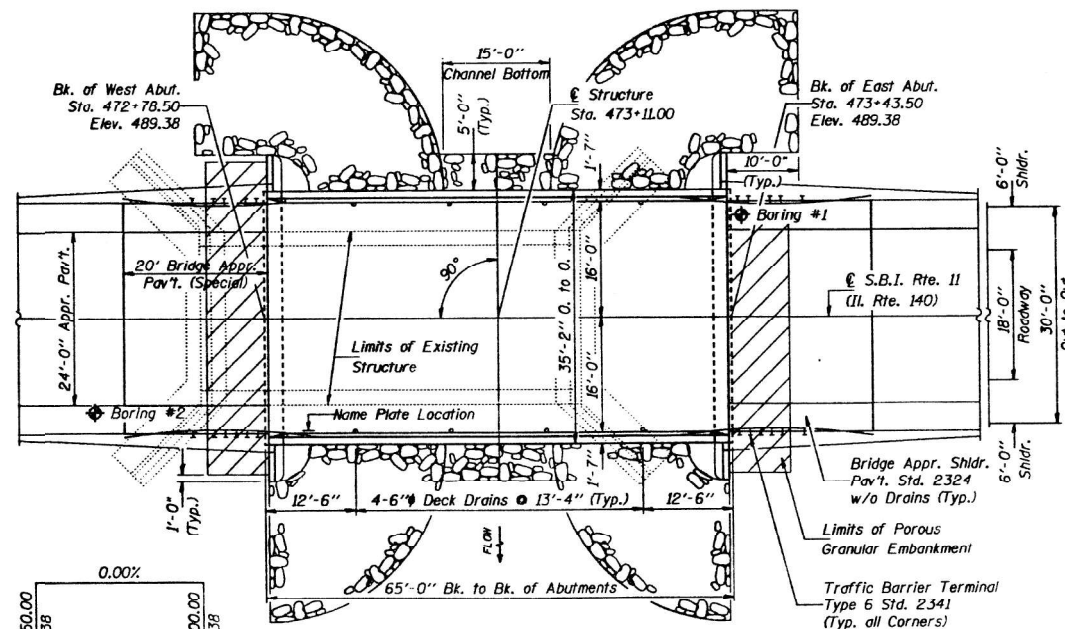
ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
S.B.I. II	Y-BR	FAYETTE	27	5
SHEET NO. 1 9 SHEETS				

Bench Mark Bridge, Sta. 473+00: 488.85 "0" - S.E. Wing Owl Creek Bridge

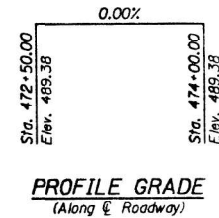
Existing Structure: #026-0056; Built as F.A.P. 9 Section Y at Station 473+00 in 1922. Simple span R.C. slab bridge 53'-0" Bk. to Bk. Abut. and 24'-2" C. to C. width. The existing bridge shall be removed and replaced with a simple span wide flange superstructure on integral abutments. Traffic to be detoured via existing road system.



ELEVATION



PLAN



PROFILE GRADE  
(Along C Roadway)

DESIGNED	MICHAEL ABIDOUNA
CHECKED	Wesley W. Walker
W.D.C.	John F. Scheller Jr.
CHECKED	MSA WDW

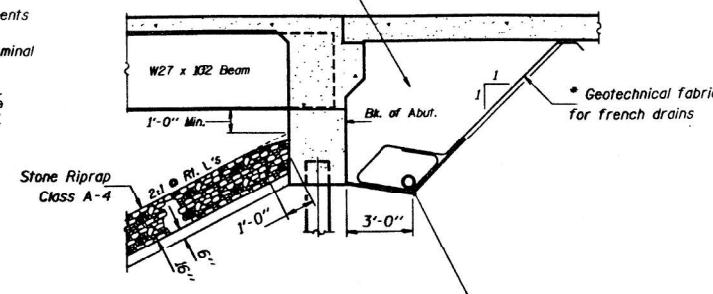
EXAMINED  
PASSED  
APPROVED  
JANUARY 6 2012  
MEMBER OF PROFESSION OF CIVIL ENGINEERS  
MEMBER OF PROFESSION OF SURVEYORS  
DIRECTOR OF HIGHWAYS

WATERWAY INFORMATION

Drainage Area = 5.8 sq. mi. Low Grade Elev. 489.4 @ Sta. 473+00.00

Flood	Freq. Yr.	C.F.S.	0	Opening Sq. Ft.	Exist.	Prop.	Nat. H.W.E.	Exist.	Prop.	Head - Ft.	Exist.	Prop.	Headwater E.
Design	50	2255	325	370	485.6	0.8	0.6	486.4	486.2				
Base	100	2600	340	385	485.9	1.2	0.8	487.1	486.7				
Overtopping													
Max. Calc.	500	3440	370	385	486.5	2.1	1.8	488.6	488.3				

Backfill with uncompacted Porous Granular Embankment with a gradation of CA-5 or CA-7 by Bridge Contractor after Superstructure is in place.



A 6" perforated drain pipe shall be situated at the bottom of an approximate 2'x2' area of porous granular embankment. The 2'x2' area shall be wrapped completely in geotechnical fabric for french drains. Extend pipe parallel with the cap until intersecting with the sideslope.

INTEGRAL ABUTMENT DETAILS

\* Cost incident to "Porous Granular Embankment"

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts 3/4" φ, open holes 5/8" φ, unless otherwise noted.  
Calculated weight of Structural Steel AASHTO M223, Gr. 50 = 39,170 Lbs.  
Calculated weight of Structural Steel AASHTO M183 = 2,830 Lbs.  
The Zinc-silicate and vinyl paint system shall be used for shop and field painting of Structural Steel. The color of the vinyl finish coat shall be Munsell No. 7.5 G 4/8 Interstate Green.  
Field welding of construction accessories will not be permitted to the bottom flange of beams. Field welding in other areas will be permitted only when approved by the Engineer.  
The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams.  
Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.  
Layout of Stone Riprap may be varied in the field to suit ground conditions as directed by the Engineer.  
The contractor shall drive one (1) Steel HPI0 x 42 test piles in a permanent location at the West Abutment as directed by the Engineer 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.  
For cantilever farming brackets see special provisions.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu. Yd.		78	78
Removal of Existing Structures	Each	1		1
Structure Excavation	Cu. Yd.		18	18
Floor Drains	Each	8		8
Class X Concrete Superstructure	Cu. Yd.	85.6		85.6
Protective Coat	Sq. Yd.	53		53
Class X Concrete	Cu. Yd.		23.1	23.1
Structural Steel	L.S.	1		1
Stud Shear Connectors	Each	1,140		1,140
Reinforcement Bars (Epoxy Coated)	Pound	16,850	3,220	20,070
Steel Piles (HPI0 x 42)	Lin. Ft.		177	177
Test Pile (Steel HPI0 x 42)	Each		1	1
Name Plates	Each		1	1
Stone Riprap Class A4	Sq. Yd.		494	494
Filter Fabric for use with Riprap	Sq. Yd.		494	494
Bridge Deck Grooving	Sq. Yd.	231		231

\* Quantity is for the top and inside surface of Parapets.

STATION 473+11.00  
BUILT 199 BY  
STATE OF ILLINOIS  
S.B.I. RT. II SEC. Y-BR  
F.A. PROJ. BA05-0051(A4)  
LOADING HS20  
STR. NO. 026-0098

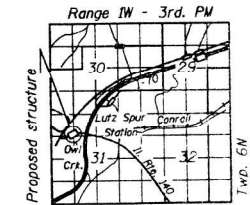
NAME PLATE  
See Std. 2113

LOADING HS20-44  
Allow 25#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS  
1989 AASHTO and 1990 & 1991 Interims  
1983 Seismic Design Specifications & 1991 Interims.

DESIGN STRESSES

FIELD UNITS  
f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)  
fy = 50,000 psi (Structural)  
Seismic Site Coefficient = 1.5  
Site Seismic Acceleration = 0.08



LOCATION SKETCH

GENERAL PLAN  
ILLINOIS RTE. 140 OVER  
OWL CREEK  
S.B.I. RTE. II - SEC. Y-BR  
FAYETTE CO.  
STA. 473+11.00  
STR. NO. 026-0098

\*\*\* FAI 70 & FAS 2793

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DATE: 2/8/2013

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	DRAWN -	REVISIONS -
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PLOT DATE = 2/8/2013	DATE -	REVISIONS -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

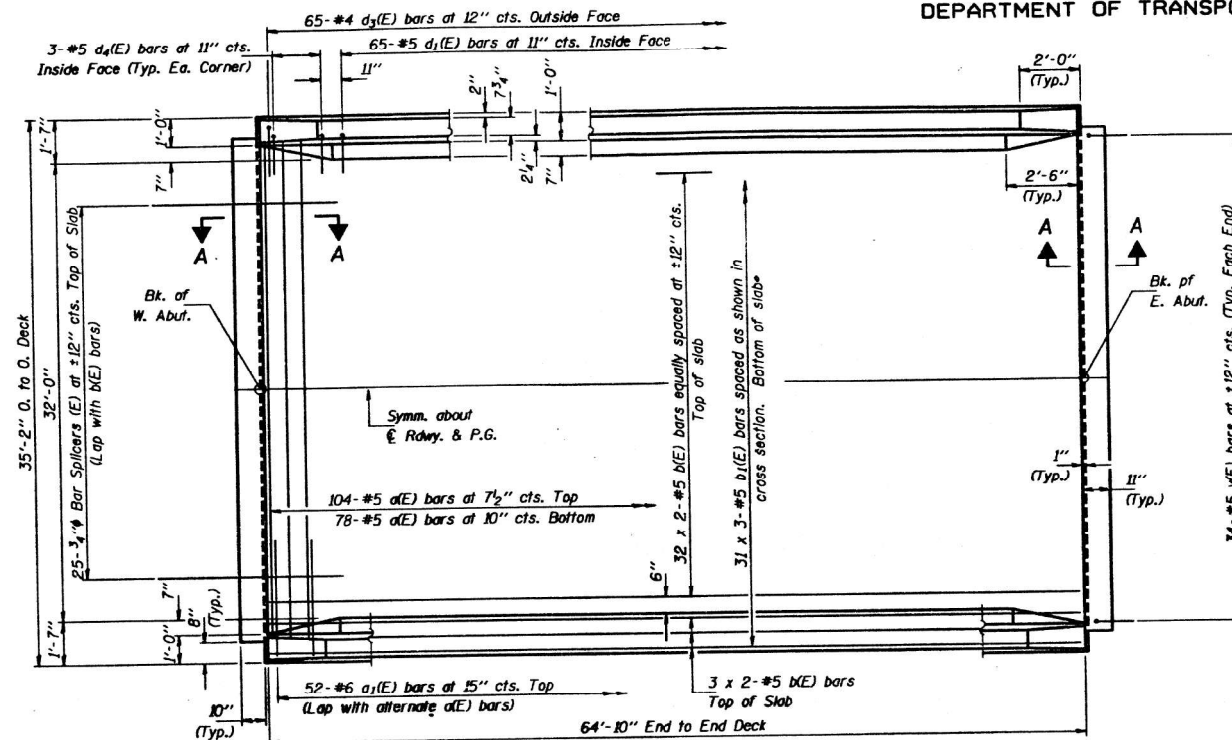
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SN 026-0098

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	*	**	16	6
CONTRACT NO. 74856				

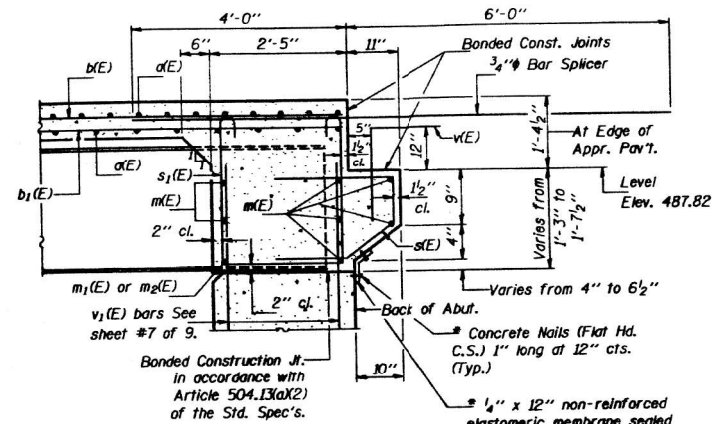
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DATE	DESIGN	DATE	NO.	SHEET NO. 3
S.B.I. II	Y-BR	FAYETTE	22	7
9 SHEETS				

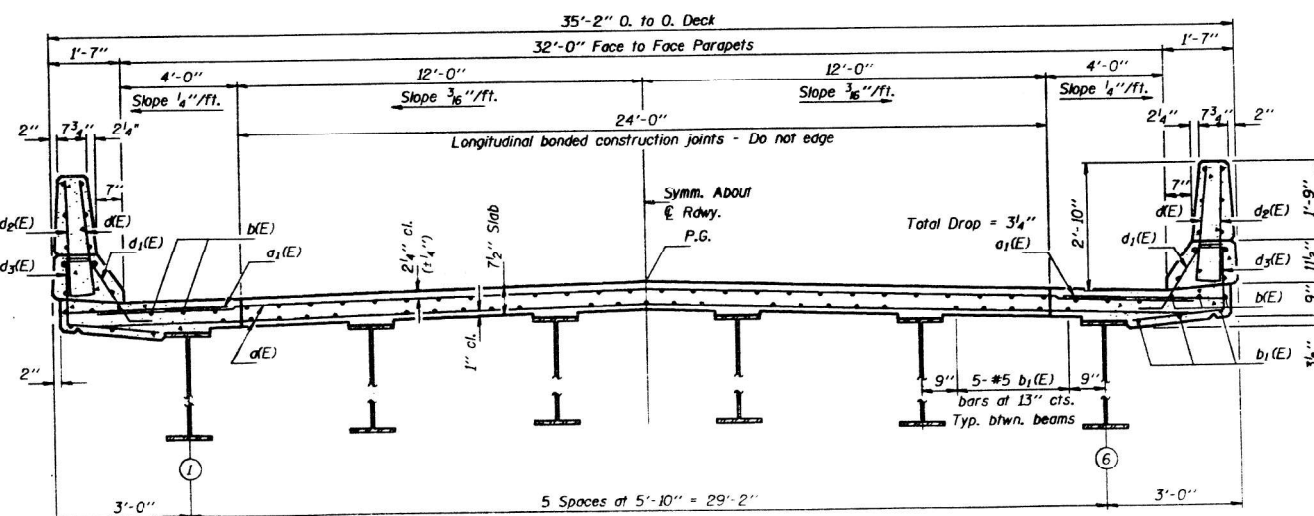


PLAN

\* Cast is incidental to Class X Concrete.



SECTION A-A AT ABUTMENTS



CROSS SECTION

Notes:  
See Sheet #4 of 9 for superstructure details and Bill of Material.  
Reinforcement bars designated (E) shall be epoxy coated.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
See Sheet #4 of 9 for parapet reinforcement.  
See Sheet #5 of 9 for Bar Splicer details.

MIN. BAR LAPS  
#5 (E) bars = 2'-2"

SUPERSTRUCTURE  
S.B.I. RT. II SEC. Y-BR  
FAYETTE COUNTY  
STA. 473+11.00

DESIGNED MICHAEL LABITON  
CHECKED [Signature]  
DRAWN John F. Schaeffer Jr.  
CHECKED MGA (WJL)  
EXAMINED [Signature]  
PASSED [Signature]  
APPROVED [Signature]

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS  
SN 026-0098

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	*	**	16	7
CONTRACT NO. 74B56				

SCALE: SHEET OF SHEETS STA. TO STA.

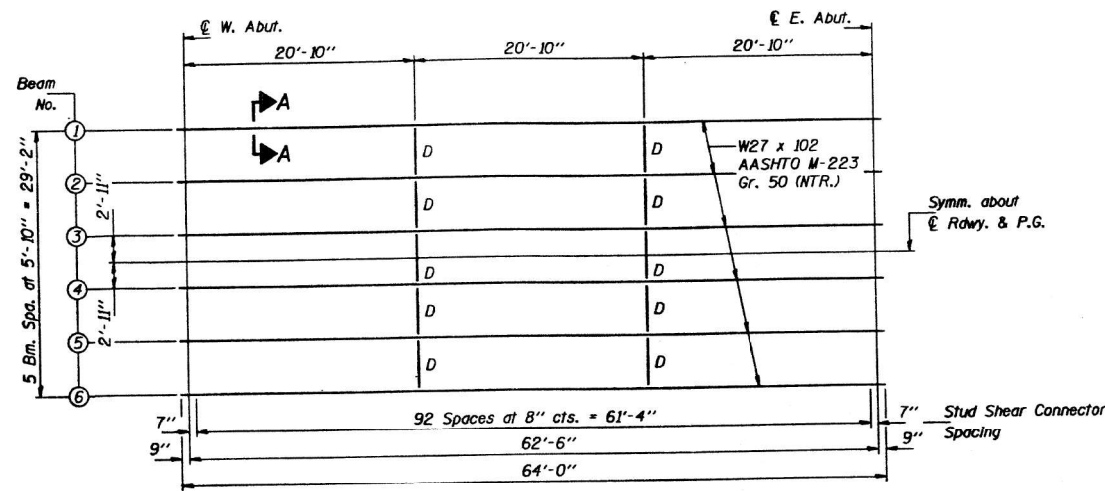
\*\*\* FAI 70 & FAS 2793





STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	STA.	SHEET NO.
S.B.I. II	Y-BR	FAYETTE	473	10
SHEETS				



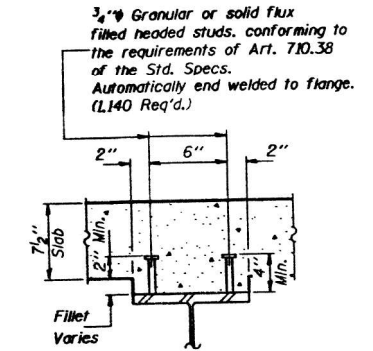
FRAMING PLAN

NTR denotes Notch Toughness Requirements.

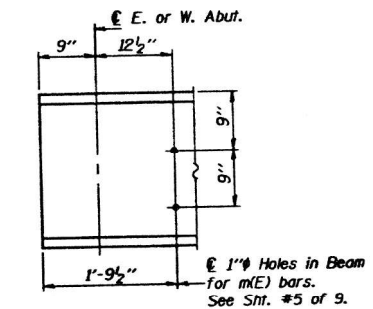
$I_s$	(in <sup>4</sup> )	3,520
$I_c$	(in <sup>4</sup> )	10,166.79
$S_s$	(in <sup>3</sup> )	267
$S_c$	(in <sup>3</sup> )	402
$D$	(K/ft.)	.679
$M_R$	(K)	332
$s_R$	(K/ft.)	283
$M_{sR}$	(K)	138
$M_t$	(K)	441
$M$ (Imp)	(K)	119
$S_3(M_t + I)$	(K)	933
$M_a$	(K)	1,824
$M_u$	(K)	2,282
$f_s R$ non-comp (k.s.i.)		4.92
$f_s R$ (comp) (k.s.i.)		4.12
$f_s S_3(L + I)$ (k.s.i.)		27.86
$f_s$ (Overload) (k.s.i.)		46.9
$VR$	(K)	

	W. Abut.	E. Abut.
$R_R$	(K)	30.05
$R_t$	(K)	32.46
Imp.	(K)	8.8
$R$ (Total)	(K)	71.31

$I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section used in computing  $f_s$  (Overload).  
 $I_c$  and  $S_c$  are the moment of inertia and section modulus of the composite section used in computing  $f_s$  (Overload).  
 $VR$  is the maximum Live Load + Impact shear range in span.  
 $M_d$  (Applied Moment) =  $L_3(M_R + M_s R + S_3 M_t + I)$ .  
 $M_u$  is the Full Plastic Moment Capacity for Compact Braced section.  
 $f_s$  (Overload) is the sum of the stresses due to  $M_R + M_s R + S_3 M_t + I$ .  
 $M_R$  - Moment due to dead loads on non-composite section.  
 $M_s R$  - Moment due to dead loads on composite section.  
 $M_t$  - Moment due to live loads on composite section.  
 $I$  - Live load impact.  
 The fully plastic moment capacity ( $M_u$ ) is computed according to AASHTO 10.48.1 to 10.50.1.1.

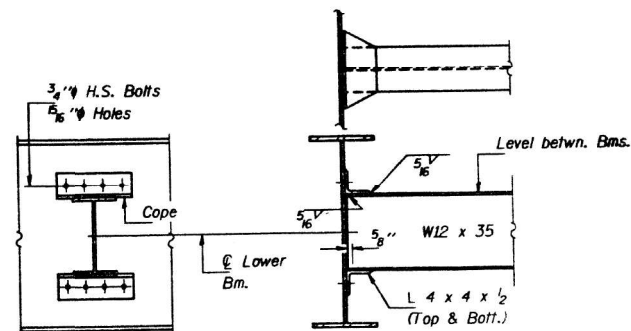


SECTION A-A



END OF BEAM ELEVATION

Notes: Two hardened washers shall be required over all 5/16 inch holes for diaphragms.

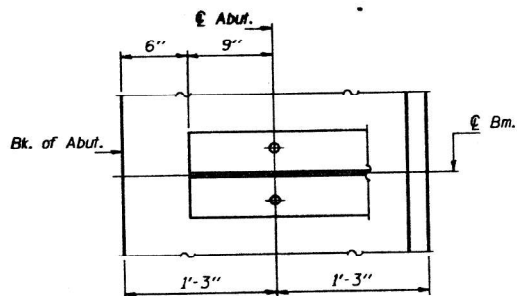


DIAPHRAGM D

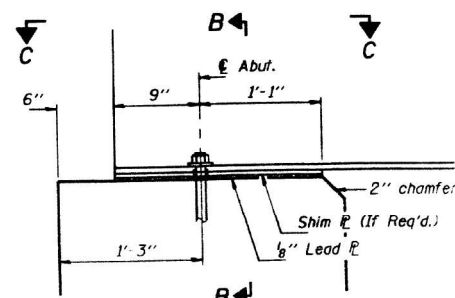
10 Required

DESIGNED Michael A. Blidown  
 CHECKED Wm. D. Wilcox  
 DRAWN John P. Scheller Jr.  
 CHECKED MCA WDW

EXAMINED [Signature]  
 PASSED [Signature]  
 APPROVED [Signature]

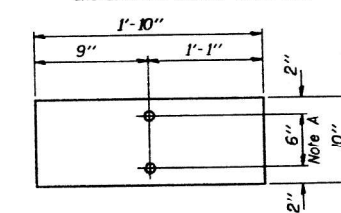


SECTION C-C

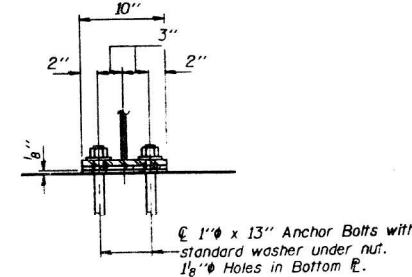


SECTION AT ABUTMENTS

Note A: 1/2 inch Holes for 1 inch Anchor Bolts and standard washer under nut.



PLAN  
(1/8" Lead Plate)



SECTION B-B

TOP OF FLANGE ELEVATIONS

Loc.	Bm. #1	Bm. #2	Bm. #3	Bm. #4	Bm. #5	Bm. #6
@ W. Abut.	488.47	488.58	488.67	488.67	488.58	488.47
@ E. Abut.	488.47	488.58	488.67	488.67	488.58	488.47

\*\* For Fabrication Only.

STRUCTURAL STEEL  
 S.B.I. RT. 11 SEC. Y-BR  
 FAYETTE COUNTY  
 STA. 473+11.00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS  
SN 026-0098

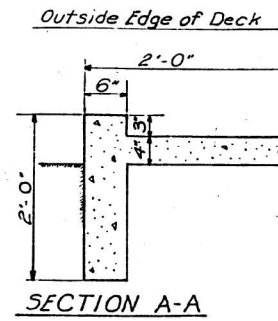
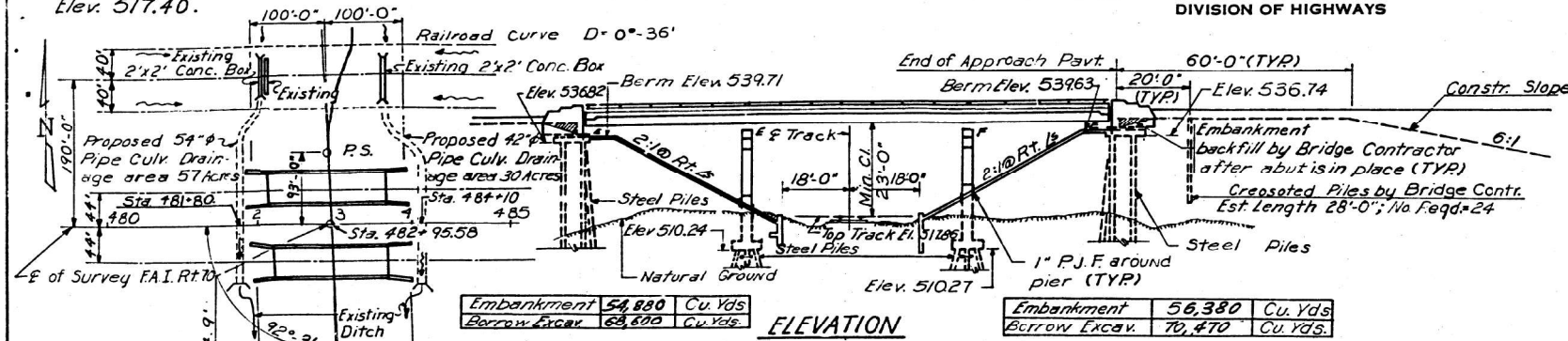
SCALE: SHEET OF SHEETS STA. TO STA.

FAI 70 & FAS 2793

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			16	9
CONTRACT NO. 74B56				

ILLINOIS FED. AID PROJECT EFFINGHAM & FAYETTE

BM: Chiseled Square in West End of North  
headwall of Culvert 169' Lt. Sta. 483+75  
Elev. 517.40.



**General Notes**

Coarse aggregate to be used in parapet handrails and end posts must be free of chert, flint, limonite, lignite and soft sandstone.

The concrete floor slab shall be finished in accordance with Article 51.19 of the Standard Specifications.

Sloped wall shall be reinforced with Welded Wire fabric 6"x6" mesh, weighing 58 lbs per 100 sq. ft.

All reinforcement bars shall be lapped 20 diameters unless otherwise shown.

Rivets 3/4" φ open holes, 1/2" φ unless otherwise noted.

Anchor bolts shall be set before riveting diaphragms over supports.

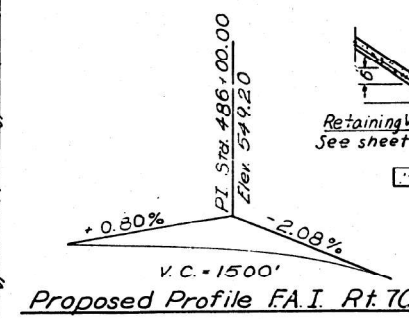
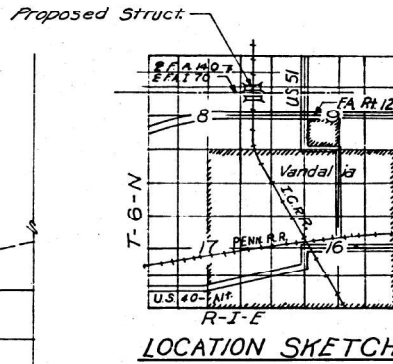
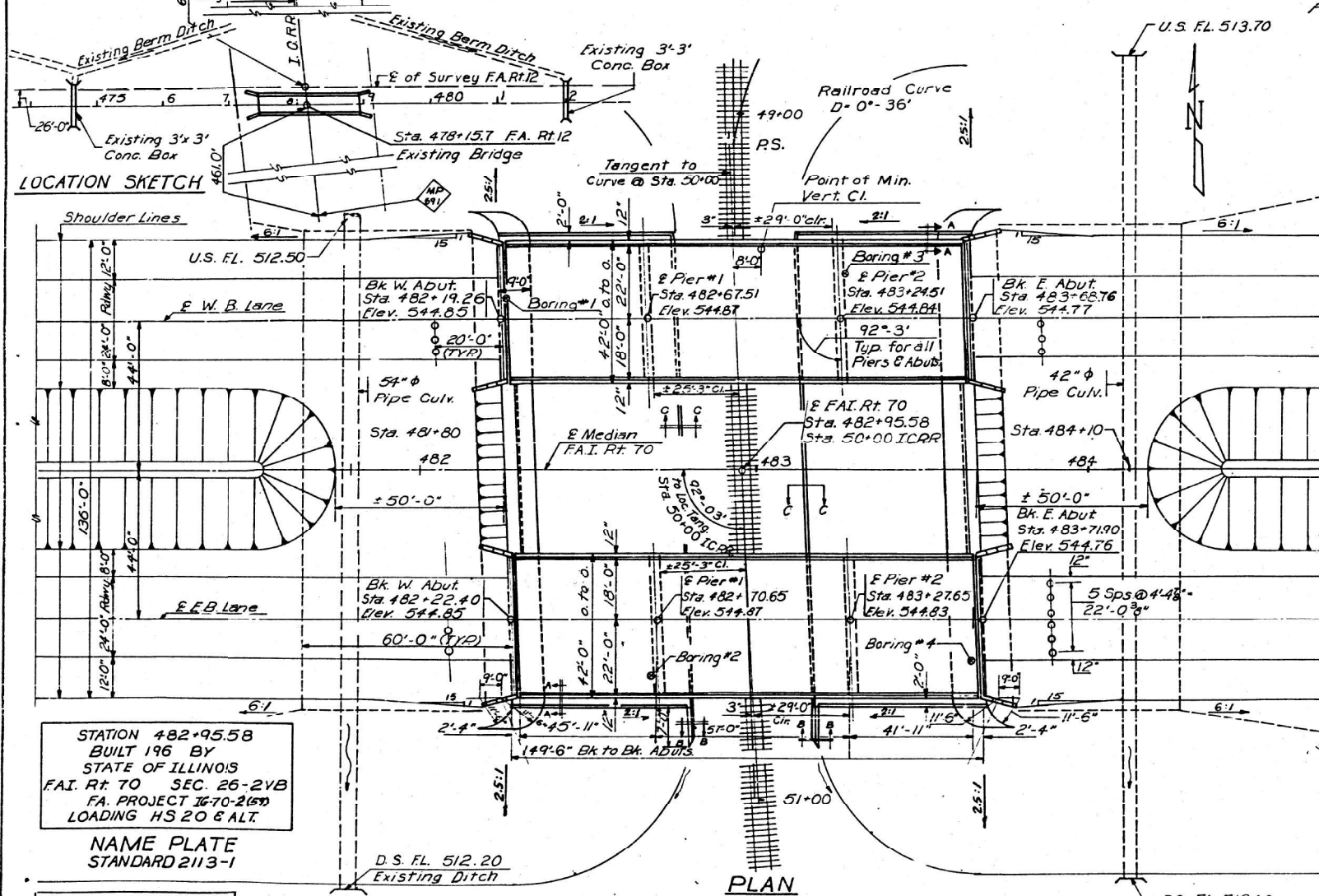
All structural steel shall conform to ASTM A-36 specifications.

The exposed surfaces of the expansion guard shall be given two shop coats of red lead paint, the contact surfaces shall be given one shop coat of red lead paint. Anchor studs shall not be painted.

Expansion guards are included in the quantity of structural steel. Estimated weight - 2190 lbs.

Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Article 56.1 to 56.6 inclusive of the standard specifications.

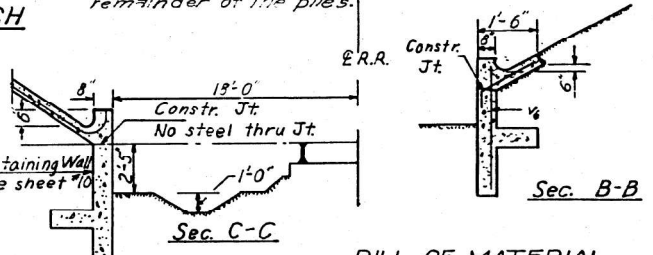
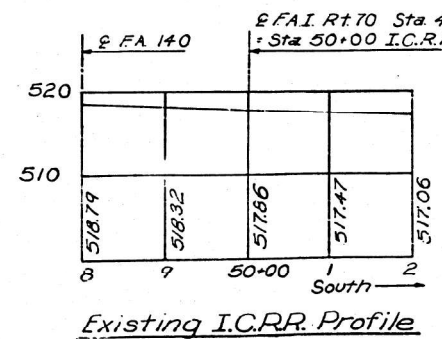
The contractor shall drive four steel test piles in permanent locations (See sheet #6, 8, 9) as directed by the Engineer before ordering the remainder of the piles.



**DESIGN STRESSES**

$f_c = 1400$  psi Superstructure  
 $f_c = 75$  psi Footing  
 $f_s = 20,000$  psi Reinf  
 $f_s = 20,000$  psi Struct (A36)  
 $n = 10$

**Loading: HS 20-44 & ALT.**



**BILL OF MATERIAL**

ITEMS	UNIT	SUP	SUB	TOT
Borrow Excavation	Cu Yds			139,070
Class A Excav. for str.	Cu Yds		610	610
Class X Conc.	Cu Yds	348.4	525.0	873.4
Structural Steel	Lbs	273,060		273,060
Aluminum Handrail	Lin. Ft.	586		586
Reinforcement Bars	Lbs	75,260	48,230	126,490
Steel Piles (10 B.P.#2)	Lin. Ft.	3,718		3,718
Test Piles Steel (10 B.P.#2)	Each	4		4
Name Plates	Each	2		2
Slope Wall (4")	Sq. Yds			1100
Protective Coat	Sq. Yds	1660		1660
Br Seat Sealant	Imp. Sum			1
Creosoted Piles	Lin. Ft.			672
Pipe Culvert 42" Dia	Lin. Ft.			268
Pipe Culvert 54" Dia	Lin. Ft.			270

\*Includes excavation for slope wall and retaining walls  
\*\* Abutments only.

STATION 482+95.58  
BUILT 196 BY  
STATE OF ILLINOIS  
FA.I. Rt. 70 SEC. 26-2VB  
FA. PROJECT 16-70-2(5)1  
LOADING HS 20 & ALT.

**NAME PLATE  
STANDARD 2113-1**

DESIGNED J.M. Tjander  
EXAMINED W.B. Baumann  
CHECKED W.P. Summer  
DRAWN Joseph L. Putnam  
APPROVED

**GENERAL PLAN & ELEVATION**  
PROJ.: 16-70-2(5)1  
FA.I. RT. 70 SEC. 26-2VB  
FAYETTE COUNTY  
STA. 482+95.58

Revised 7-7-64 WH Retaining wall added at toe of slopewalls. Class x Concrete changed from 803.6 to 873.4 Cu Yds., Reinf Bars changed from 122,360 to 126,490  
Class A Excavation changed from 380 to 610 Cu Yds.

MODEL: Defaul... FILE: NAME: p... PROJECT: 16-70-2(5)1... DRAWN: Joseph L. Putnam

USER NAME = Jessica.Hille	DESIGNED -	REVISED -
PLOT SCALE = 100,000' / in.	DRAWN -	REVISED -
PLOT DATE = 2/8/2023	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS  
SN 026-0015 & 0016

SCALE: SHEET OF SHEETS STA. TO STA.

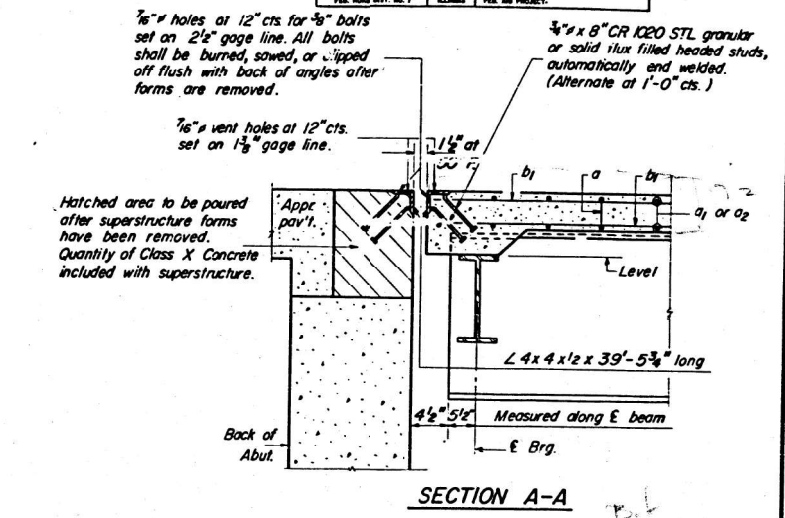
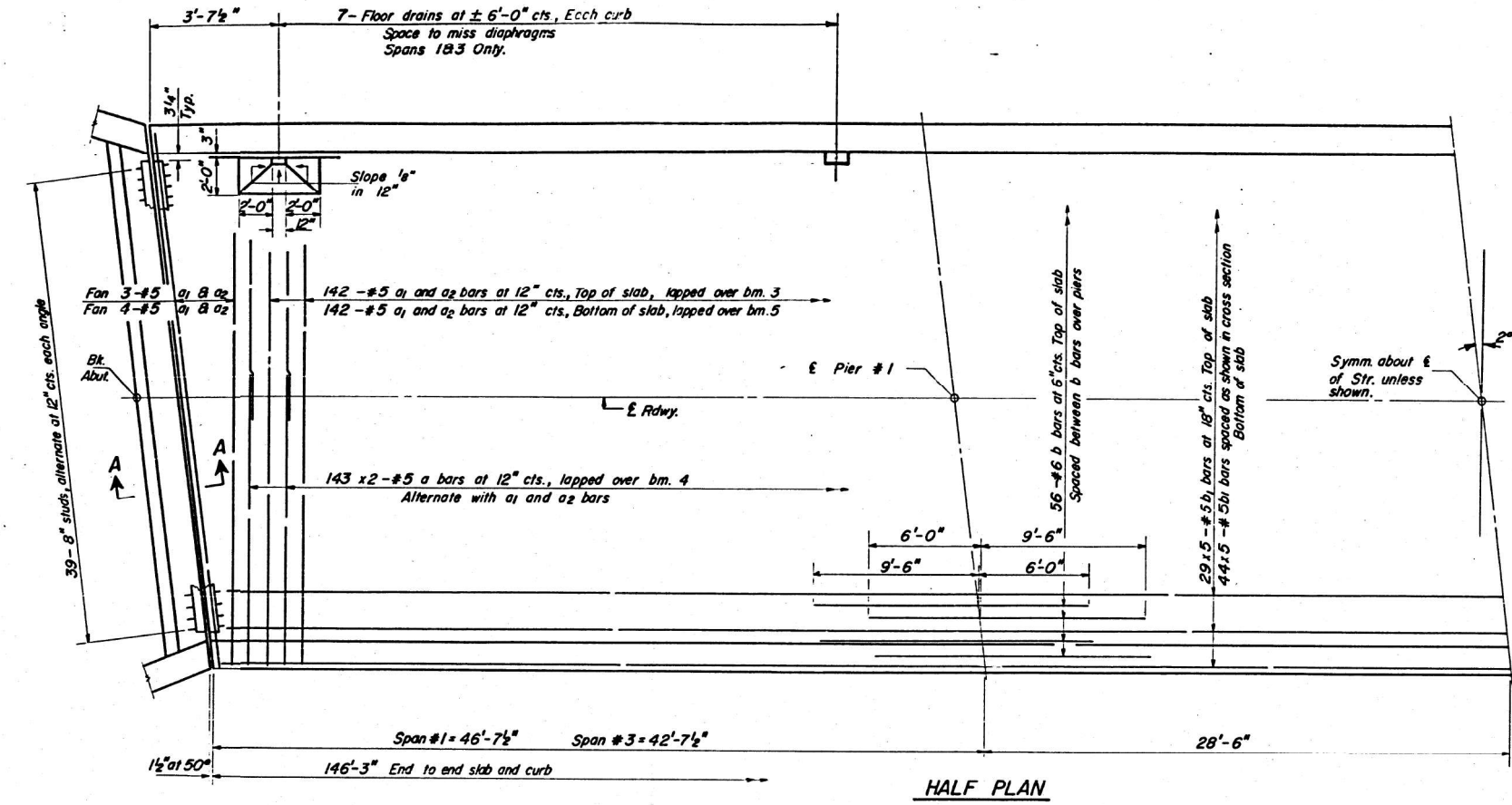
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		**	16	10
CONTRACT NO. 74B56				

\*\*\* FAI 70 & FAS 2793

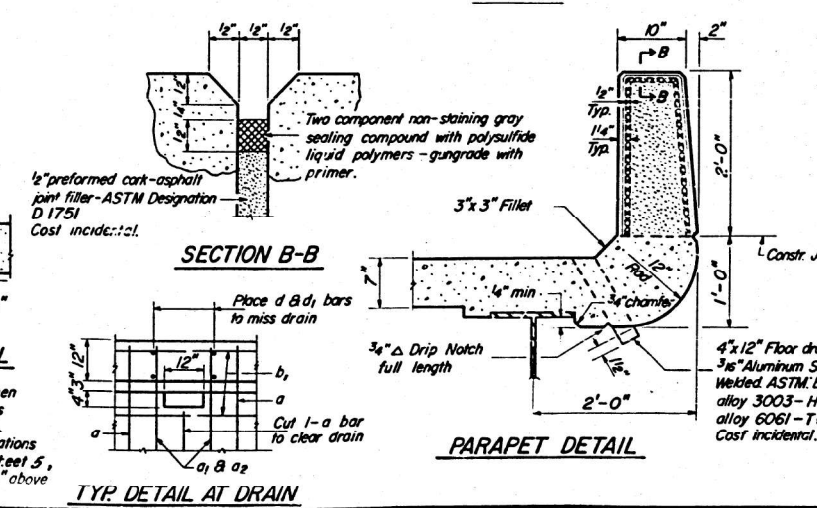
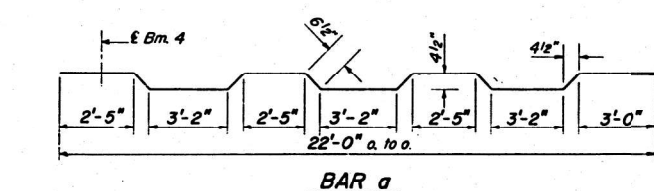
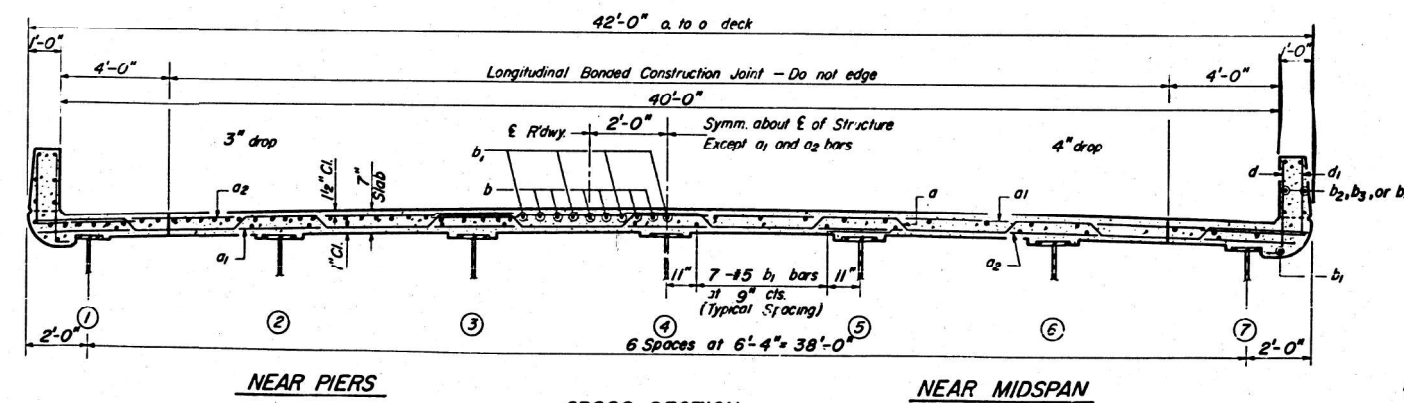
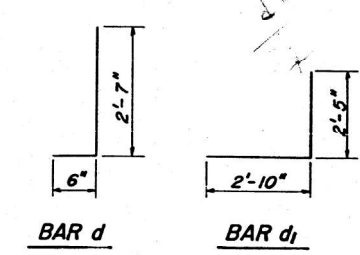
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
70	20	Fayette	20	6
SHEETS				

Note:  
Bars indicated thus 20x3-#5 etc. indicates  
20 lines of bars with 3 lengths per line.  
Min. bar laps = 20 dia.



Note:  
For reinforcement and jt.  
spacing in parapet see  
Sheet # 4.



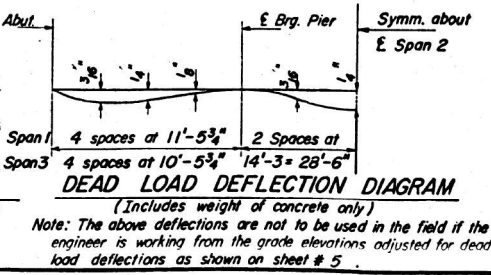
TWO BRIDGES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	572	#5	23'-0"	U
a <sub>1</sub>	596	#5	28'-6"	U
a <sub>2</sub>	596	#5	15'-6"	U
b	224	#6	15'-6"	U
b <sub>1</sub>	730	#5	30'-0"	U
b <sub>2</sub>	72	#5	15'-3"	U
b <sub>3</sub>	72	#5	18'-9"	U
b <sub>4</sub>	72	#5	13'-11"	U
d	728	#5	3'-1"	U
d <sub>1</sub>	584	#5	5'-3"	U
Class X Concrete		Cu. Yd.	348.4	
Reinforcement Bars		Lbs.	78260	
Structural Steel		Lbs.	273080	

\* Weight of bearing assemblies with lead plates and anchor bolts are included as structural steel.  
EST. Weight = 14,360 Lbs.

DESIGNED J. M. Tjornehoj  
CHECKED W. H. H. J. M. Tjornehoj  
DRAWN Paul G. Barnett J.L.P.  
DL Beamer

EXAMINED K.C. Blummann  
PASSED E. H. H. J. M. Tjornehoj  
APPROVED



STANDARD FILLET DETAIL

To determine "r": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheet 5. These elevations subtracted from the "Grade Elevations Adjusted for Dead Load Deflections" shown on sheet 5, minus slab thickness, equals the fillet heights "r" above top of beams.

I-7-R (± 15°) 11-15-62

SUPERSTRUCTURE  
E. & W. B. LANE BRIDGES  
F.A.I. RT. 70 SEC. 20V  
FAYETTE COUNTY  
STA. 482+95.58

MODEL: Defaul... FILE: NAME: ...

USER NAME = Jessica.Hille	DESIGNED -	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 2/8/2023	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

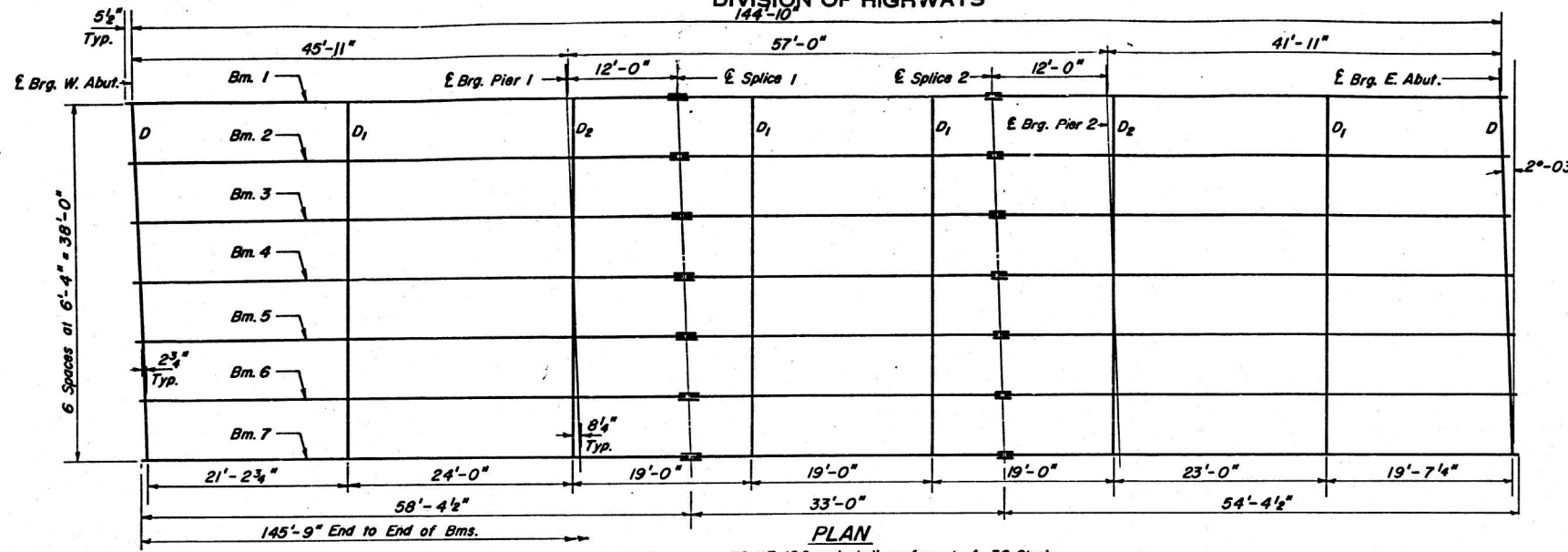
EXISTING STRUCTURE PLANS  
SN 026-0015 & 0016

SCALE: SHEET OF SHEETS STA. TO STA.

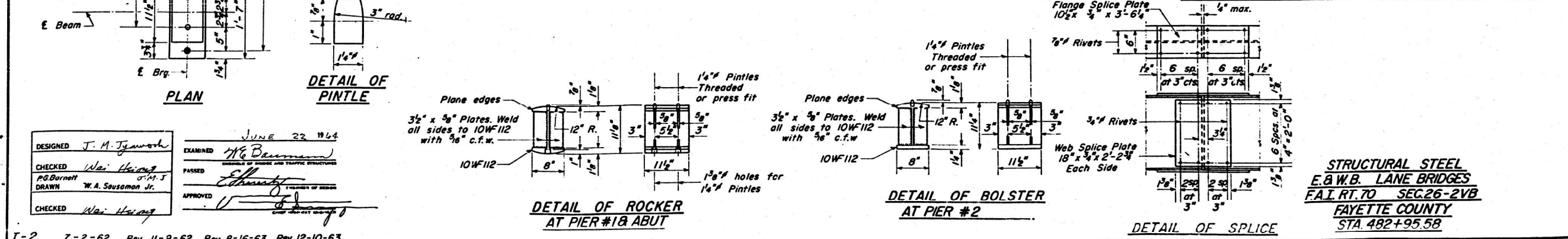
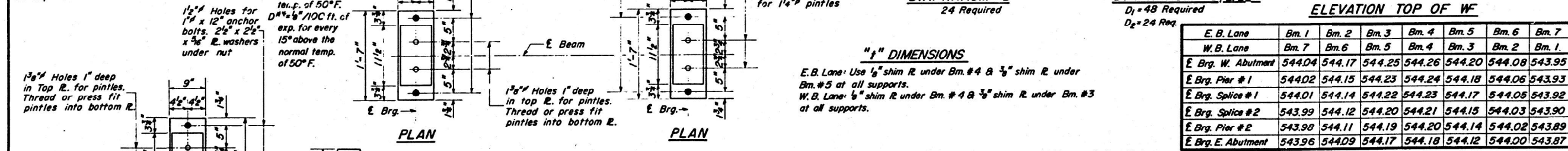
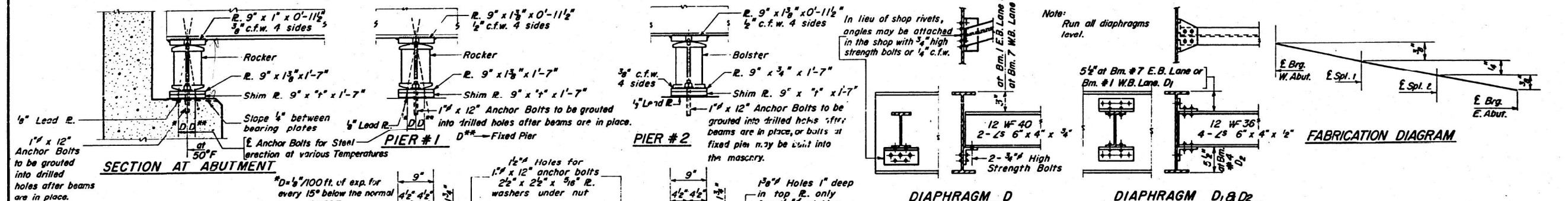
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			16	11
CONTRACT NO. 74B56				
ILLINOIS FED. AID PROJECT				

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	26-2B	Fayette	20	7
SHEET NO. 3 10 SHEETS				



PLAN  
All Beams are 30 WF 108 and shall conform to A-36 Steel.



ELEVATION TOP OF W

E. B. Lane	Bm. 1	Bm. 2	Bm. 3	Bm. 4	Bm. 5	Bm. 6	Bm. 7
W. B. Lane	Bm. 7	Bm. 6	Bm. 5	Bm. 4	Bm. 3	Bm. 2	Bm. 1
E. Brg. W. Abutment	544.04	544.17	544.25	544.26	544.20	544.08	543.95
E. Brg. Pier #1	544.02	544.15	544.23	544.24	544.18	544.06	543.93
E. Brg. Splice #1	544.01	544.14	544.22	544.23	544.17	544.05	543.92
E. Brg. Splice #2	543.99	544.12	544.20	544.21	544.15	544.03	543.90
E. Brg. Pier #2	543.98	544.11	544.19	544.20	544.14	544.02	543.89
E. Brg. E. Abutment	543.96	544.09	544.17	544.18	544.12	544.00	543.87

DESIGNED J. M. Tjvold  
CHECKED Wei Huang  
DRAWN W. A. Sausaman Jr.  
APPROVED

EXAMINED H. C. Baumann  
PASSED  
DATE JUNE 22 1964

I-2 7-2-62 Rev. 11-9-62 Rev. 8-16-63 Rev. 12-10-63

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS  
SN 026-0015 & 0016

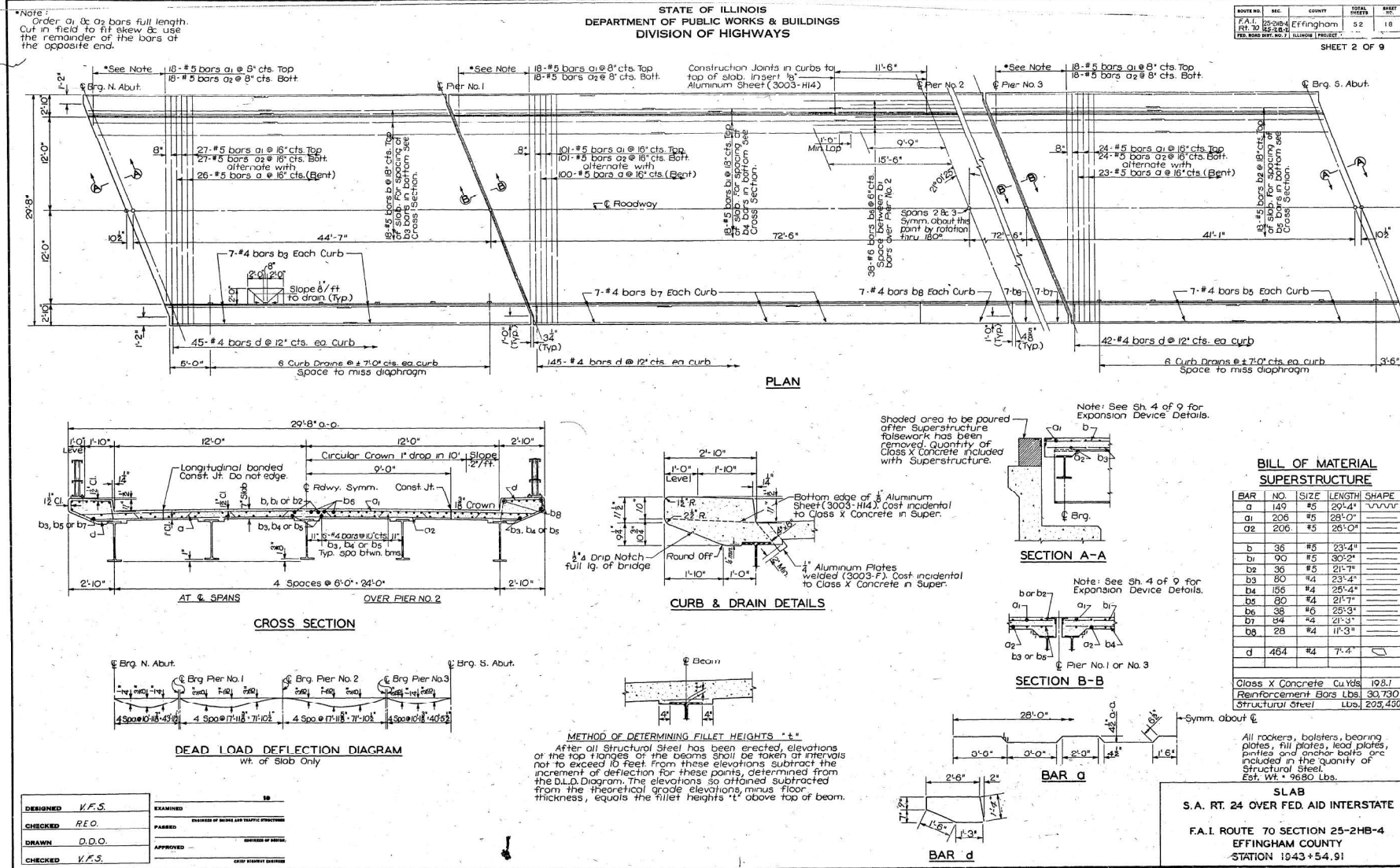
USER NAME = Jessica.Hille	DESIGNED -	REVISED -	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 100,000' / in.	DRAWN -	REVISED -	***	*	**	16	12
PLOT DATE = 2/8/2023	CHECKED -	REVISED -	CONTRACT NO. 74B56				
	DATE -	REVISED -	SCALE:	SHEET	OF	SHEETS	STA. TO STA.

\*\*\* FAI 70 & FAS 2793

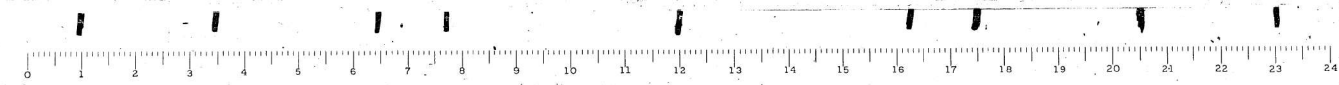
ILLINOIS FED. AID PROJECT EFFINGHAM & FAYETTE



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Revised - 8.15.20, 11.11.20. On CROSS SECTION, top of handrail changed from Aluminum to Steel.  
 Revised 1.27.21. On CURB HEIGHT, show 2' conc. quantity. R.R.D.



\*\*\* FAI 70 & FAS 2793

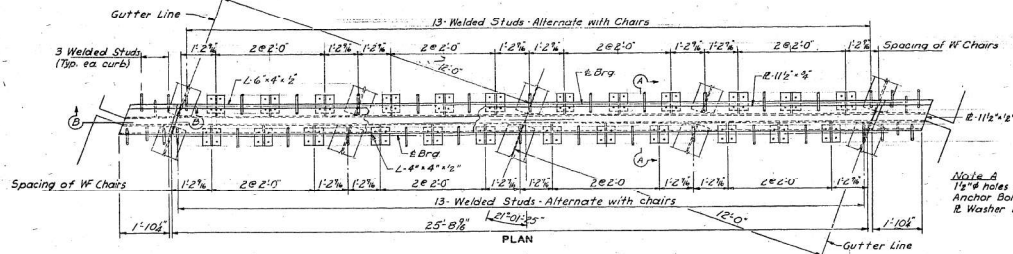
USER NAME	DESIGNED	REVISIONS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING STRUCTURE PLANS SN 0025-0045	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Jessica.Hille	V.F.S.	-			70	25	EFFINGHAM	16	14
	DRAWN	REVISIONS							
	CHECKED	REVISIONS							
	DRAWN	REVISIONS							
	CHECKED	REVISIONS							
	DATE	REVISIONS							



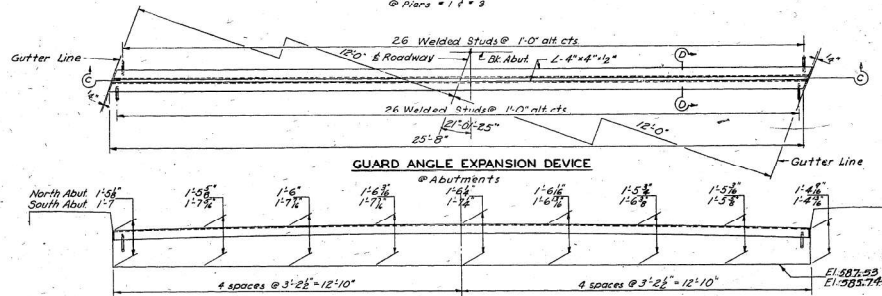
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

ROUTE NO.	12	COUNTY	EFFINGHAM	SHEET NO.	20
PROJECT	12-18-82				
DESIGNER	ILLINOIS				

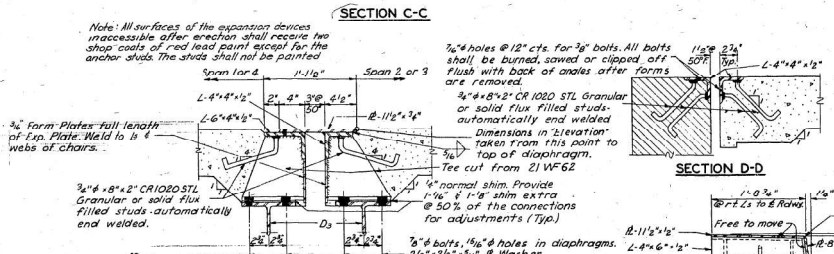
SHEET 4 OF 9



SLIDING PLATE EXPANSION DEVICE



GUARD ANGLE EXPANSION DEVICE



Note: All surfaces of the expansion devices inaccessible after erection shall receive two coats of red lead paint except for the shop coats of red lead paint for the anchor studs. The studs shall not be painted.

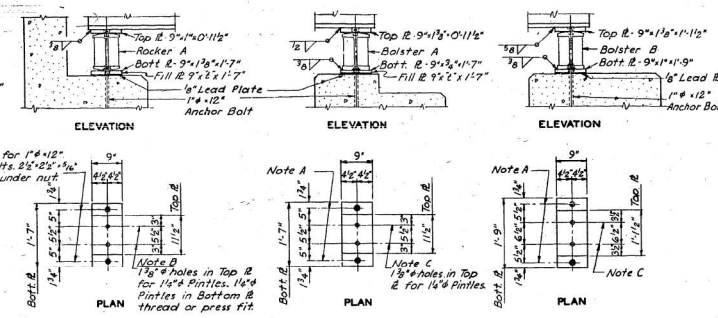
3/4" Form Plates - full length of Top Plate Weld to 4 webs of chairs.

3/4" x 8" x 2" CR1020 STL Granular or solid flux filled studs automatically end welded.

DESIGNED	V.F.S.	EXAMINED	IS
CHECKED	REO	PASSED	DIVISION OF HIGHWAY & TRAFFIC PROTECTION
DRAWN	V.F.S.	APPROVED	DIVISION OF HIGHWAY
CHECKED	D.J.M.	DATE	GROUP

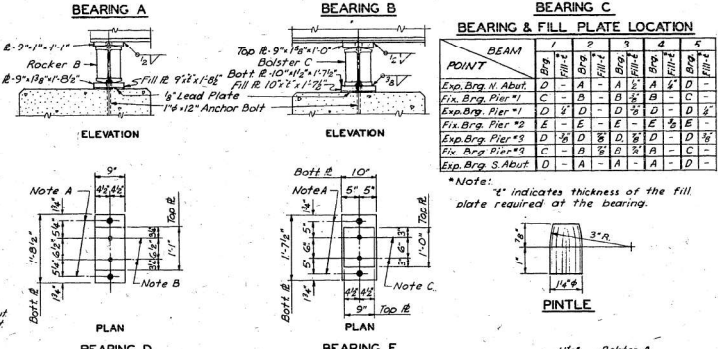
SECTION A-A

Note: The Roadway Expansion Devices shall be fabricated to fit the Roadway. Est. wt. of all Expansion Devices complete = 7790 Lbs. Included in quantity of Structural Steel on sheet 2 of 9.



BEARING & FILL PLATE LOCATION

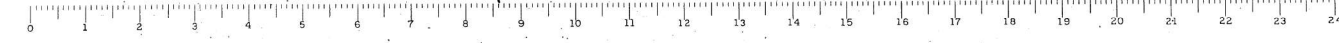
POINT	BEAM	1	2	3	4	5	6
Exp. Brg. W. Abut.	D	A	A	A	A	D	D
Exp. Brg. Pier 1	C	B	B	B	B	C	C
Exp. Brg. Pier 2	E	E	E	E	E	E	E
Exp. Brg. Pier 3	D	D	D	D	D	D	D
Exp. Brg. Pier 4	C	B	B	B	B	C	C
Exp. Brg. S. Abut.	D	A	A	A	A	D	D



ROCKER DETAILS

BOLSTER DETAILS

EXPANSION DEVICE & BEARINGS  
S.A. RT. 24 OVER FED. AID INTERSTATE  
F.A.I. ROUTE 70 SECTION 25-2HB-4  
EFFINGHAM COUNTY  
STATION 1943+54.91



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS  
SN 0025-0045

USER NAME	= Jessica.Hille
PLOT SCALE	= 100,0000' / in.
PLOT DATE	= 2/8/2023

DESIGNED	-	REVISED	-
DRAWN	-	REVISED	-
CHECKED	-	REVISED	-
DATE	-	REVISED	-

SCALE: SHEET OF SHEETS STA. TO STA.

\*\*\* FAI 70 & FAS 2793

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	*	**	16	16
CONTRACT NO. 74B56				
ILLINOIS FED. AID PROJECT				