

057

11-09-2018 LETTING ITEM 057

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D7	BRIDGE PAINTING 2019-4	FAYETTE	11	1
CONTRACT NO. 74878				

• FAI 70 & FAP 322

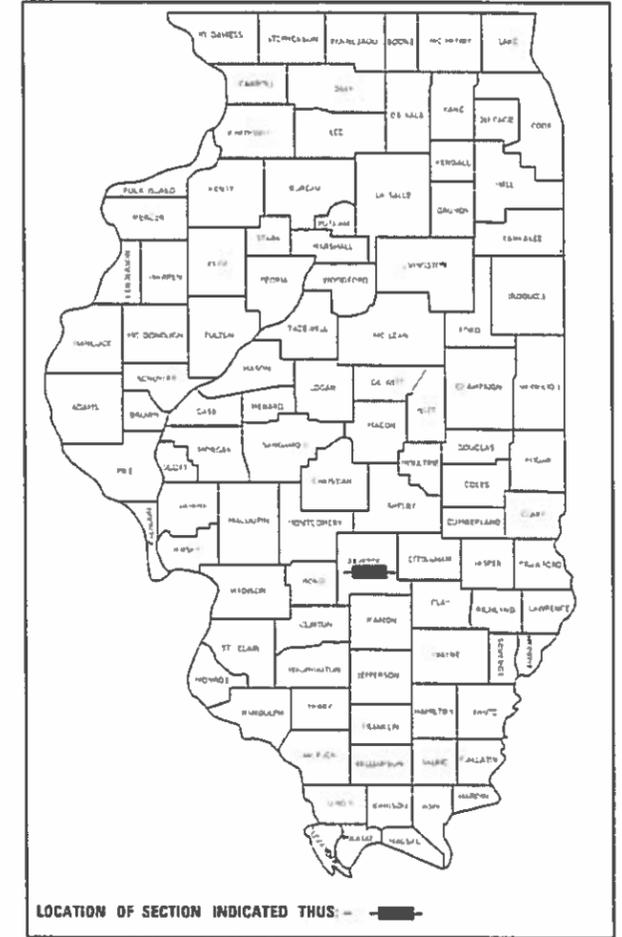
D-97-065-08

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED HIGHWAY PLANS

FAI 70 (I 70) & FAP 322 (US 51)
SECTION D7 BRIDGE PAINTING 2019-4
PROJECT NHPP-16GU(475)
BRIDGE PAINTING
FAYETTE COUNTY

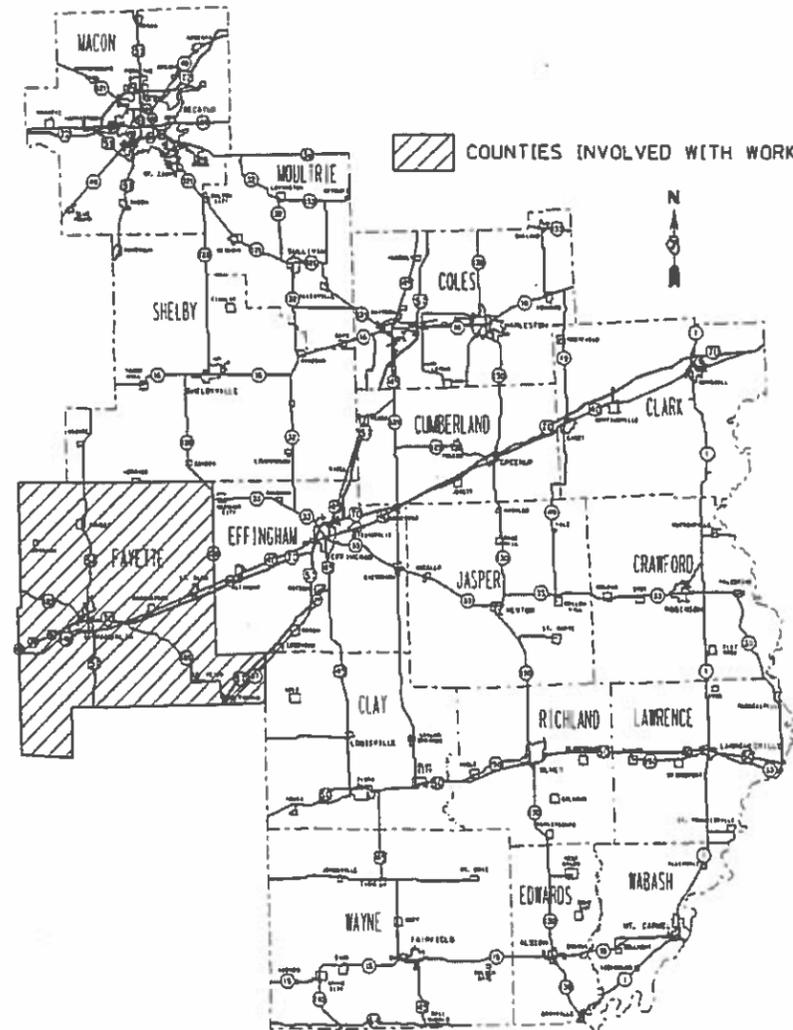
C-97-115-18



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. 74878



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 09 2018
Jeffrey M. Southley
REGIONAL ENGINEER

Oct 5 2018
E.A. Etk
ENGINEER OF DESIGN AND ENVIRONMENT

Oct 5 2018
Paul P. Chaf
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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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	LOCATION MAP
5-11	EXISTING STRUCTURE PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 11:

- 000001-06 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
- 701201-04 LANE CLOSURE, 2L, 2W, FOR SPEEDS >= 45 MPH
- 701400-09 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-11 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701402-12 LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
- 701411-09 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >= 45 MPH
- 701901-07 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER

GENERAL NOTES

THE PROPOSED PROJECT IS LOCATED AT 2 LOCATIONS: ON INTERSTATE 70 AND US ROUTE 51 IN FAYETTE 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 #1

BRIDGE # 1
 ROUTE: FAI ROUTE 70
 MARKED: I-70
 SECTION: 26-2HB-4
 STATION: 512+58.57
 STRUCTURE NUMBER: 026-0032

TYPE OF BRIDGE: Wide Flange I Beams-4 Spans - 14 Beams
 LOCATION: US Route 51 Interchange in Vandalia
 FEATURE CARRIED/SPANNED: US 51 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.

LOCATION #2

BRIDGE # 2
 ROUTE: FAP 322
 MARKED: U.S. 51
 SECTION: 23BR-1
 STATION: 87+36
 STRUCTURE NUMBER: 026-0035

TYPE OF BRIDGES: Wide Flange I Beams-3 Spans - 8 Beams
 LOCATION: 1.5 Miles South of US Route 40
 FEATURE CARRIED/SPANNED: US 51 over Sandy Run Creek

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.

No air monitors will be required at this location.

**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.
*	D7 BRIDGE PAINTING 2019-4	FAYETTE	11	2
			CONTRACT NO. 74878	
		ILLINOIS	FED. AID PROJECT	

80% FED
20% STATE

80% FED
20% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		0047 URBAN FAI 70	0047 RURAL FAP 322
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	1	1	
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	2	2	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1		1
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	400	400	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1200	1200	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1	
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	3	3	
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	28	28	
X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	240	240	

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		0047 URBAN FAI 70	0047 RURAL FAP 322
Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1	0.9	0.1
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1	
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1		1

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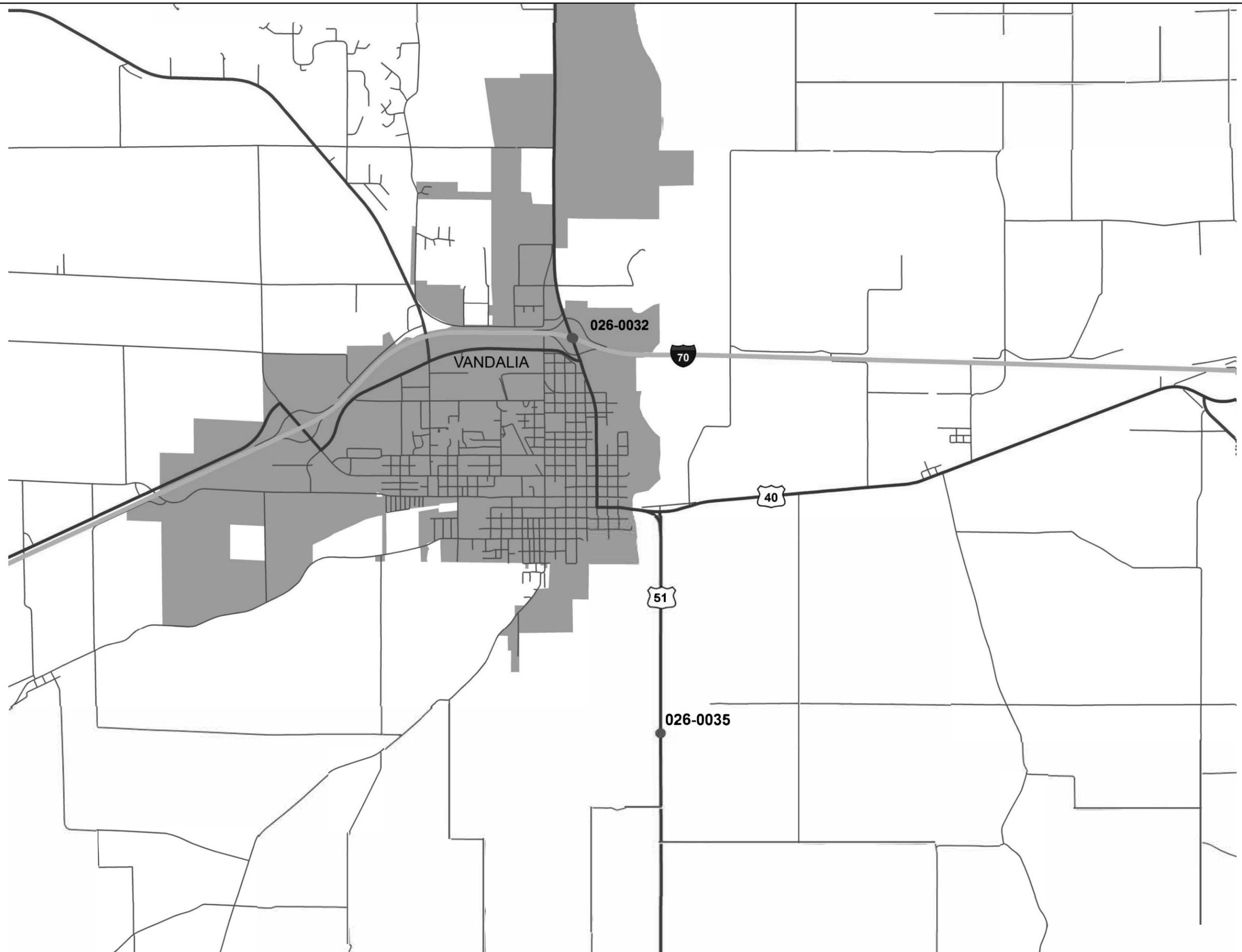
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	D7 BRIDGE PAINTING 2019-4	FAYETTE	11	3
			CONTRACT NO. 74878	
ILLINOIS FED. AID PROJECT				

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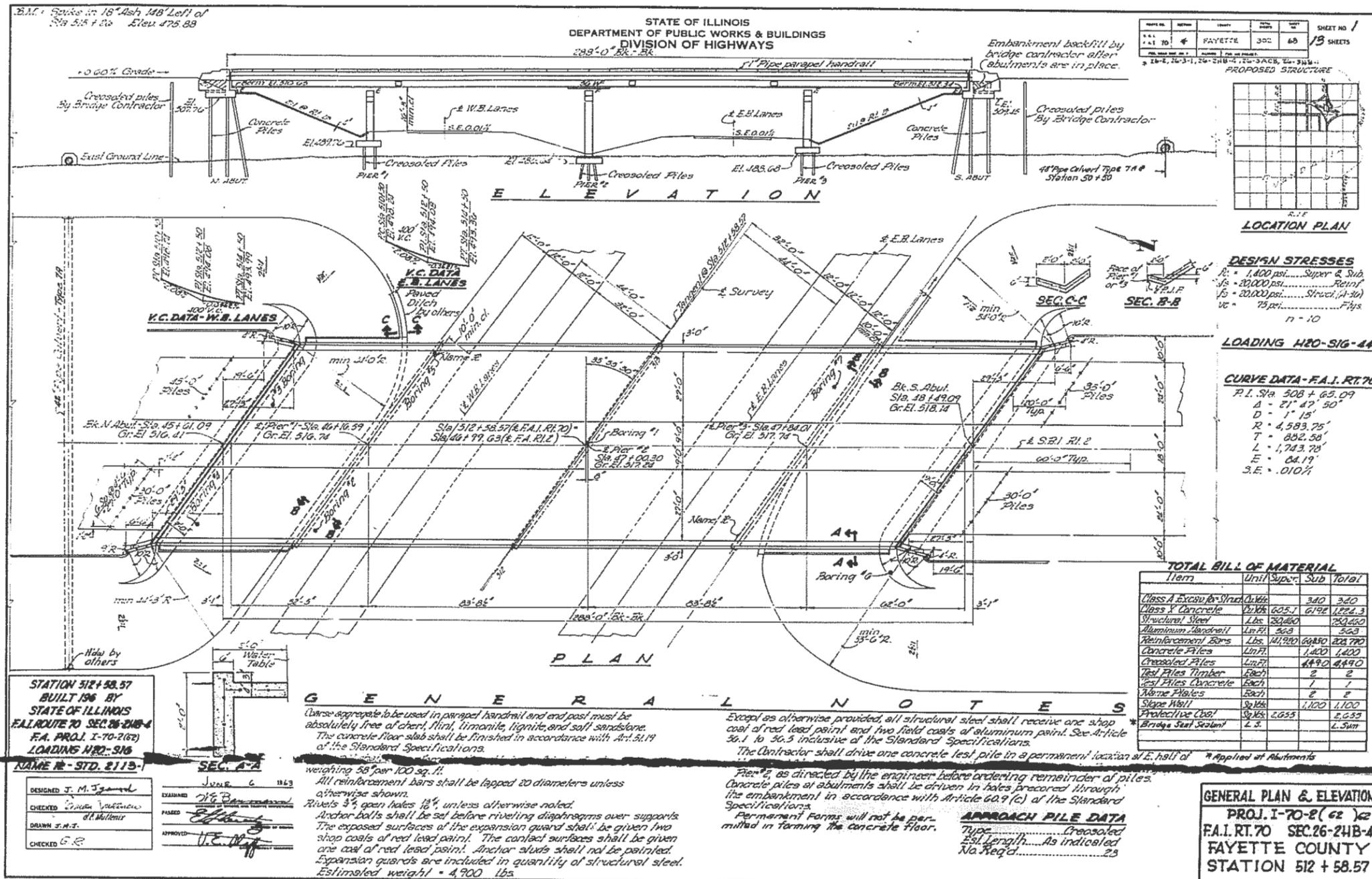
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

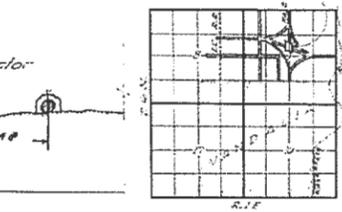
LOCATION MAP

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	D7 BRIDGE PAINTING 2019-4	FAYETTE	11	4
			CONTRACT NO. 74878	
ILLINOIS FED. AID PROJECT				



DATE	REVISION	BY	NO.	DATE
10-1-70	4	FAYETTE	302	65



DESIGN STRESSES
 P_c = 1,400 psi.....Super & Sub
 P_s = 20,000 psi.....Reinf.
 P_s = 20,000 psi.....Struct. (4-30)
 W_c = 75 psi.....Flts.
 n = 10

LOADING H20-S16-44

CURVE DATA - F.A.I. RT. 70
 P.I. Sta 508 + 65.09
 Δ = 21° 47' 50"
 D = 1' 15"
 R = 4,583.75'
 T = 882.50'
 L = 1,743.78'
 E = 04.19'
 S.E. = .010%

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Class A Excavator-Shovel	Cu Yd	340	360	
Class X Concrete	Ditch	605.1	6192	1284.3
Structural Steel	Lbs	20260		20260
Aluminum Handrail	Lv Ft	563		563
Reinforcement Bars	Lbs	41,900	64,840	106,740
Concrete Piles	Lv Ft	1,400	1,400	
Crossed Piles	Lv Ft	4,490	4,490	
Test Piles Timber	Each	2	2	
Test Piles Concrete	Each	1	1	
Alume. Piles	Each	2	2	
Slope Mat	Sq Yds	1,100	1,100	
Protective Coar	Sq Yds	2,635		2,635
Bridge Seat System	L.S.			2.5mm

STATION 512 + 58.57
 BUILT 196 BY
 STATE OF ILLINOIS
 F.A.I. ROUTE 70 SEC. 26-24B-4
 F.A. PROJ. I-70-2(62)
 LOADINGS H20-S16
 NAME # - STD. 2119-1

DESIGNED J. M. Farnell
 CHECKED Linda Vetterli
 DRAWN S.M.T.
 CHECKED G.R.

EXAMINED J.B.B.
 PASSED [Signature]
 APPROVED [Signature]

GENERAL NOTES

Course aggregate to be used in parapet handrail and end post must be absolutely free of chert, flint, limonite, lignite, and soft sandstone. The concrete floor slab shall be finished in accordance with Art. 51.19 of the Standard Specifications.

weighting 58 per 100 sq. ft.
 All reinforcement bars shall be lapped 20 diameters unless otherwise shown.
 Rivets 3/4 open holes 1/4, unless otherwise noted.
 Anchor balls shall be set before riveting diaphragms over supports. The exposed surfaces of the expansion guard shall be given two shop coats of red lead paint. The contact surfaces shall be given one coat of red lead paint. Anchor studs shall not be painted. Expansion guards are included in quantity of structural steel. Estimated weight = 4,900 lbs.

Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. Sec. 4-1-10 36.1 to 36.5 inclusive of the Standard Specifications.

The Contractor shall drive one concrete test pile in a permanent location at E. half of Pier #2 as directed by the engineer before ordering remainder of piles. Concrete piles at abutments shall be driven in holes precast through the embankment in accordance with Article 60.9 (c) of the Standard Specifications.

Permanent forms will not be permitted in forming the concrete floor.

APPROACH PILE DATA
 Type.....Crossed
 Est. Length.....As indicated
 No. Req'd.....25

GENERAL PLAN & ELEVATION
 PROJ. I-70-2(62)
 F.A.I. RT. 70 SEC. 26-24B-4
 FAYETTE COUNTY
 STATION 512 + 58.57

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	DATE -	REVISION -

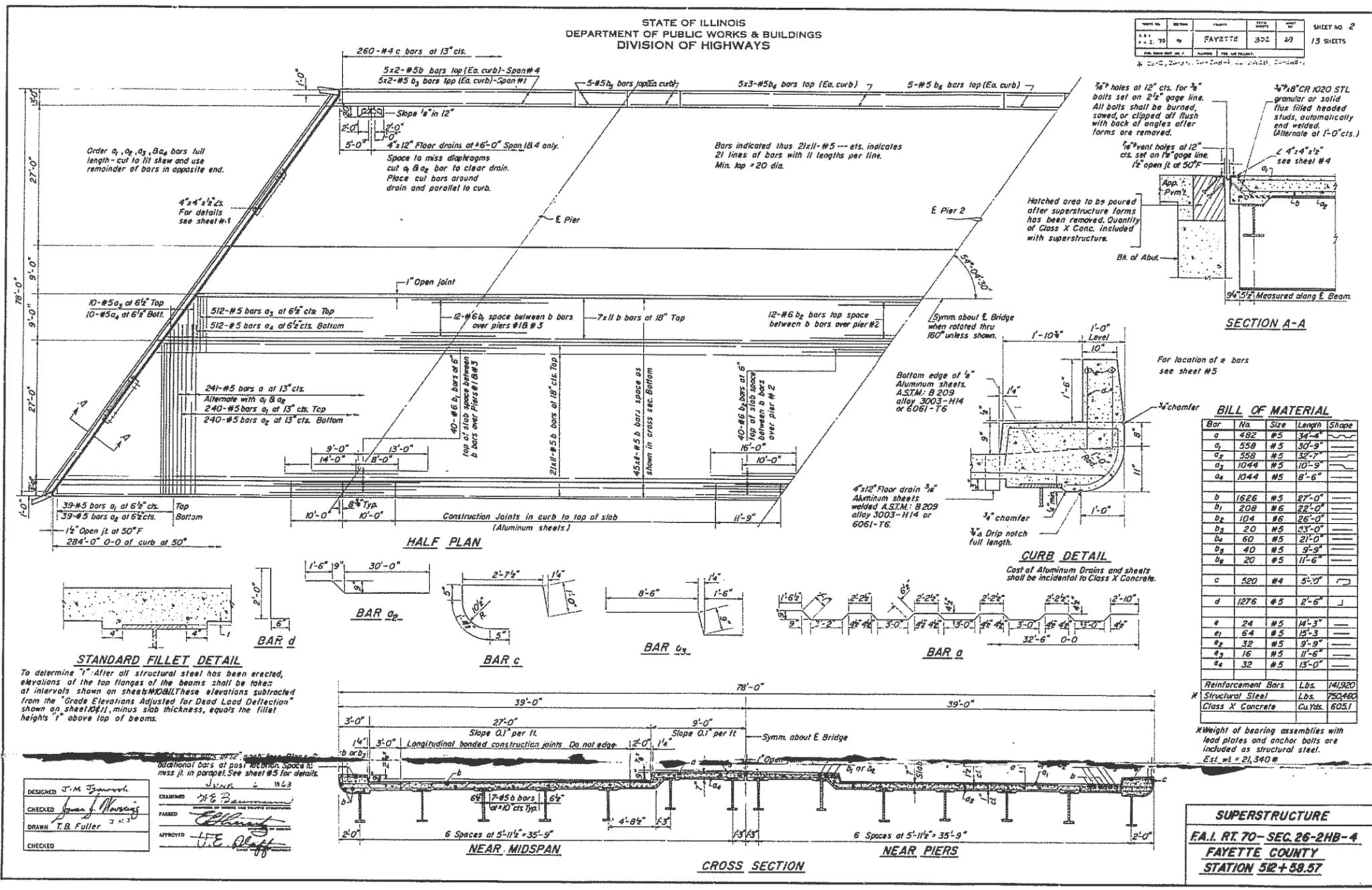
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS	
026-0032	
SCALE:	SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE PAINTING 2019-4	FAYETTE	11	5
CONTRACT NO. 74878				
ILLINOIS FED. AID PROJECT				

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

PROJECT NO.	DATE	SCALE	SHEET NO.
FAYETTE	3001	20	13 SHEETS



DESIGNED: J.M. Franck
CHECKED: James J. Morrison
DRAWN: T.B. Fuller
APPROVED: U.E. Deff

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS
026-0032

USER NAME = stefenmk	DESIGNED -	REVISED -
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PLOT DATE = 8/14/2018	CHECKED -	REVISED -
	DATE -	REVISED -

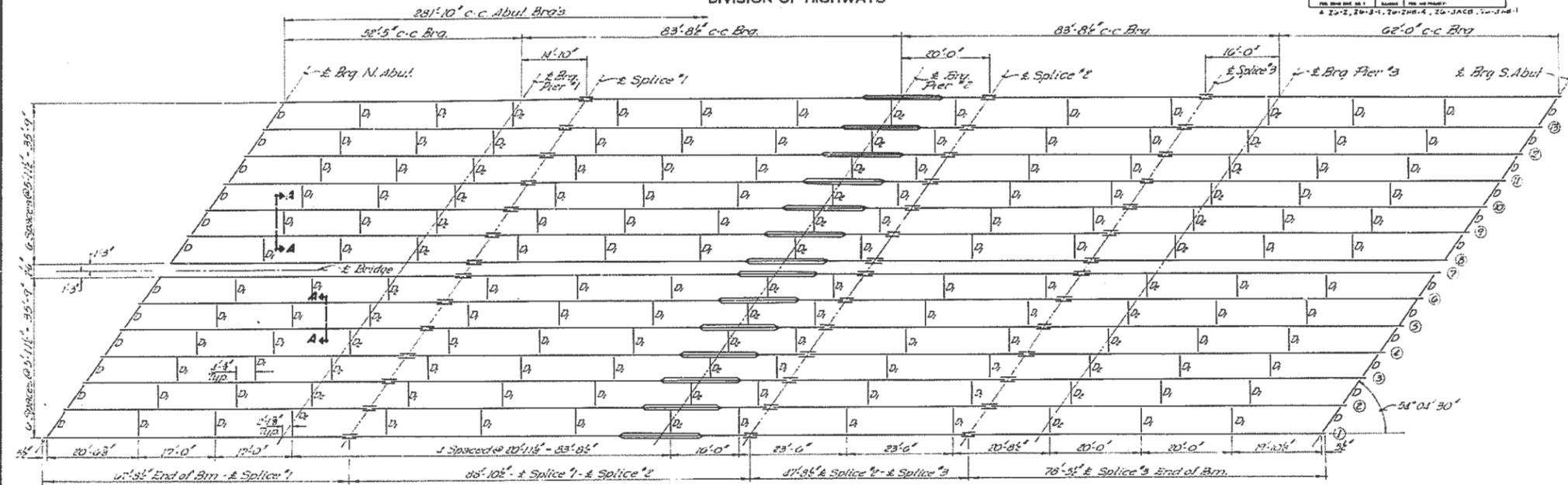
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D7 BRIDGE PAINTING 2019-4		FAYETTE	11	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74878	

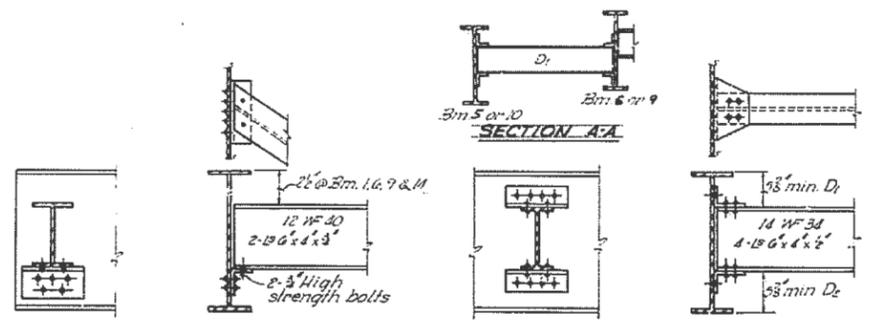
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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

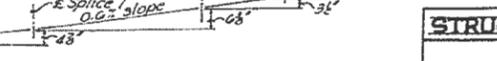
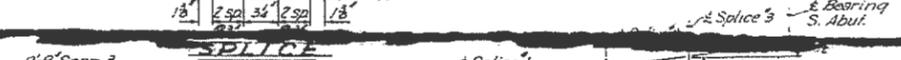
SHEET NO.	13	SHEETS	13
PROJECT NO.	201-2-20-3-1, 201-2-20-3-4, 201-2-20-3-5	DATE	7/1/18
DESIGNED BY	J.M. Tzanov	CHECKED BY	J.M. Tzanov
DRAWN BY	J.C. Muller	APPROVED BY	J.E. Hoff



FRAMING PLAN
All beams are 36 WF160 and shall conform to A-36 Steel



Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7	Beam 8	Beam 9	Beam 10	Beam 11	Beam 12	Beam 13	Beam 14
& Brg. N. Abut.	515.40	515.40	515.50	515.00	515.71	516.33	516.01	516.62	516.39	516.82	516.80	516.77	516.75	516.74
& Brg. Pier 1	515.72	515.80	515.80	515.79	516.00	516.85	516.79	516.74	516.91	516.14	516.12	516.09	516.07	516.04
& Splice 1	515.81	515.89	515.97	516.01	516.12	516.50	517.02	517.00	517.00	516.23	516.21	516.18	516.16	516.13
& Brg. Pier 2	516.22	516.30	516.33	516.45	516.45	516.35	517.42	517.42	517.41	516.64	516.62	516.59	516.57	516.54
& Splice 2	516.34	516.42	516.50	516.57	516.65	517.17	517.54	517.55	517.53	516.76	516.74	516.71	516.69	516.66
& Splice 3	516.63	516.71	516.79	516.86	516.94	517.26	517.83	517.84	517.82	517.05	517.03	517.01	517.00	516.99
& Brg. Pier 3	516.72	516.80	516.80	516.95	517.03	517.83	517.95	517.94	517.91	517.14	517.12	517.09	517.07	517.04
& Brg. S. Abut.	517.09	517.17	517.25	517.32	517.40	518.12	518.30	518.31	518.29	517.52	517.50	517.47	517.45	517.42



DESIGNED	J.M. Tzanov	DATE	7/1/18
CHECKED	J.M. Tzanov	DRAWN	J.C. Muller
APPROVED	J.E. Hoff		

STRUCTURAL STEEL
EAST 70 SEC 26-288-4
FAYETTE COUNTY
STATION 512 + 58.57

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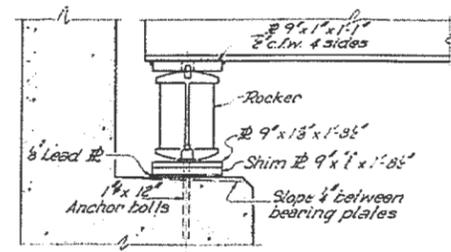
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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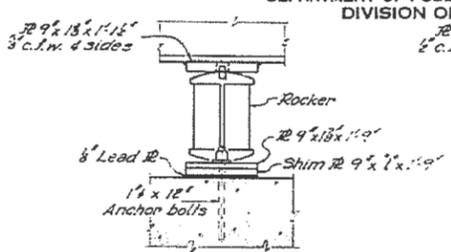
ILLINOIS	FED. AID PROJECT
CONTRACT NO. 74878	

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

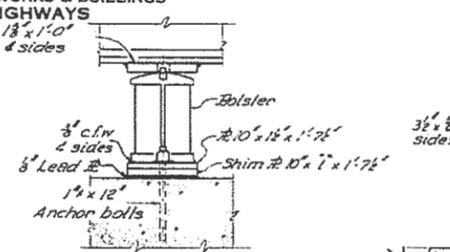
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201-1-20	4	FAYETTE 302	71
SHEET NO. 13 SHEETS			



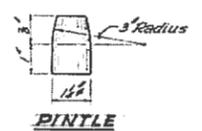
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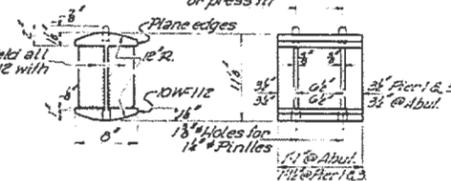
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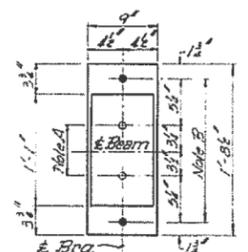
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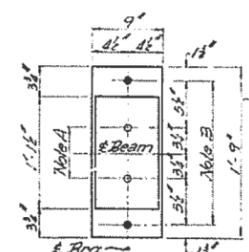
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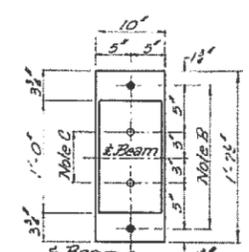
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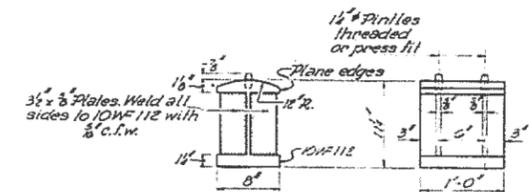
PLAN @ ABUTMENT



PLAN @ PIER #1 & 3



PLAN @ PIER #2



BOLSTER

Note A
1/2" Holes - 1" deep in top flange for pinholes. Thread or press fit pinholes into bottom flange.

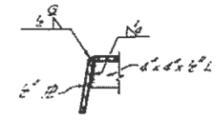
Note B
1/2" Holes for 1" anchor bolts. 2x2 x 1/2" R. Washer under nut.

Note C
1/2" Holes - 1" deep in top flange only for 1/2" pinholes.

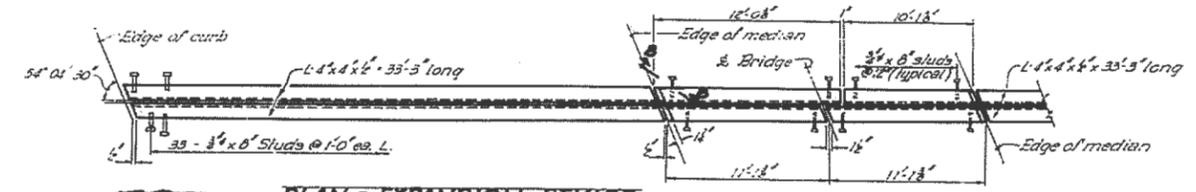
BEARING ASSEMBLY DETAILS

DIMENSIONS AT ALL SUPPORTS

Use 1/2" shim @ beams 8 and 10.
Use 3/8" shim @ beam 13.
Use 3/8" shim @ beam 12.



SECTION A-A



PLAN - EXPANSION DEVICE

DESIGNED	J. M. Givens	DRAWN	J. M. Givens
CHECKED	James G. Manning	APPROVED	J. M. Givens
DATE	8/14/2018		

BEARING & EXPANSION DEVICE
FAYETTE COUNTY
STATION 512 + 58.57

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	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 8/14/2018	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS
026-0032

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	D7 BRIDGE PAINTING 2019-4	FAYETTE	11	8
CONTRACT NO. 74878				
ILLINOIS FED. AID PROJECT				

