

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FAI DATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	ILU 2023-3	LEE	12	1
		ILLINOIS	CONTRACT NO. 64R58	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

# PROPOSED HIGHWAY PLANS

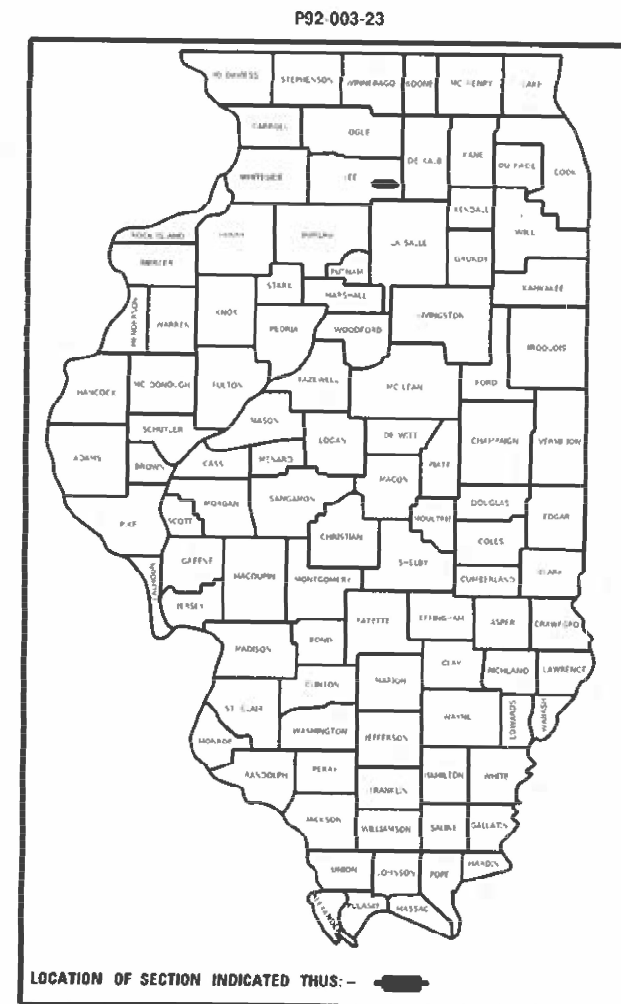
FAI ROUTE 39 (I-39)  
SECTION ILU2023-3  
PROJECT NHPP-FKSX(994)  
LIGHTING UPGRADE  
LEE COUNTY

C-92-068-22

PROJECT LOCATION  
I-39 AT US 30



Twp Willow Creek Sec 33  
R2E T38N



LOCATION OF SECTION INDICATED THIS: -

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 EXCAVATORS  
1-800-892-0123  
OR 811

PROJECT ENGINEER SCOTT KULLERSTRAND  
PROJECT MANAGER KRISTINE HILL

CONTRACT NO. 64R58

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 15, 2023

[Signature]  
REGIONAL ENGINEER

May 12, 2023 [Signature]  
ENGINEER OF DESIGN AND ENVIRONMENT

May 12, 2023 [Signature]  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS



# SUMMARY OF QUANTITIES

0021  
90% Fed  
10% State

PAY ITEM	DESCRIPTION	UNIT	QUANTITY
67100100	MOBILIZATION	EACH	1
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	1
70100825	TRAFFIC CONTROL AND PROTECTION, STANDARD 701456	L SUM	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
81028750	UNDERGROUND CONDUIT, COILABLE NONMETALLIC, 2" DIA.	FOOT	315
81603000	UNIT DUCT, 600V, 2-1C NO. 1/C NO. 8, GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	6,128
82110007	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH	12
82500330	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	1
83008600	LIGHT POLE, ALUMINUM, 40FT. M.H. 15 FT. MAST ARM	EACH	12
83600356	LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE 8 5/8" x 6'	EACH	12
83800650	BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN	EACH	48
84200605	REMOVAL OF LIGHTING TOWER, NO SALVAGE	EACH	4
84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	1
84500120	REMOVAL OF ELECTIC SERVICE INSTALLATION	EACH	1
84500130	REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	14,910
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	1.0
X8420510	REMOVAL OF TOWER FOUNDATION	EACH	4

UTILITIES			
Name and address of Utility	Type	Telephone	
Mr Nathan Hauck Adesta/G4S Technology, LLC 565 Willowbrook Center Pkwy Willowbrook, IL 60527-5512	Communications	331-264-1971	JULIE MEMBER? YES
			CALL:
Mr Ronald Konopasek Commonwealth Edison Company 1 Lincoln Center Oak Brook Terrace, IL 60181	Electric	309-883-4400	JULIE MEMBER? YES
			CALL:

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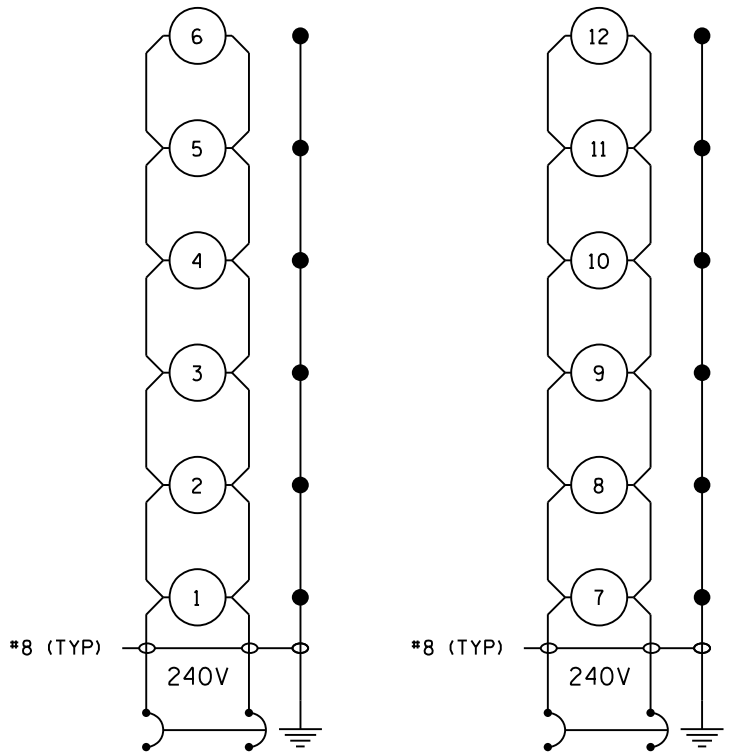
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	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES AND UTILITIES			
SCALE:	SHEET	OF	SHEETS
	STA.		TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	ILU 2023-3	LEE	12	3
			CONTRACT NO. 64R5B	
ILLINOIS FED. AID PROJECT				

# Luminaire Performance Table



2 POLE 20 AMP BREAKER  
CKT. 1

2 POLE 20 AMP BREAKER  
CKT. 2

## US-30 AND IL-39

PROPOSED LIGHTING CONTROLLER,  
PEDESTAL MOUNTED, 240V, 60AMP

**LEGEND:**

① PROPOSED LIGHTING UNIT

⏚ GROUND ROD

**NOTES:**

- ALL NECESSARY REVISIONS TO THE WIRING SHOWN ON THIS SHEET SHALL BE MADE AT NO ADDITIONAL COST TO THE DEPARTMENT AND TO THE SATISFACTION OF THE ENGINEER.

**Project**

Date	Contract Number	Section Number	County
01/05/2023	64R58	ILU 2023-3	LEE
Marked Route Number		Municipality	
US-30 AND IL-39		N/A	

**Roadway**

Lane Width	# of Lanes	Median Width	I.E.S Surface Classification	O-Zero Value
16	1	N/A	R3	0.07

**Structure**

Mounting Height	Arm Length	Set Back	Number of Luminaires (Highmast & Sign Lighting Only)
40 FT	15 FT	15 FT	N/A

**Luminaire**

Description	I.E.S. Lateral Distribution	I.E.S. Vertical Distribution	
ROADWAY LUMINAIRE, LED, OUTPUT DESIGNATION G	TYPE III	MEDIUM	
Total Light Loss Factor (LLF)	BUG Rating	Shields	Dimming Protocol
0.7	U = 0	N/A	10V

**Layout**

Spacing (to Nearest 5 Ft) Configuration (Opposite, Staggered, 1 Sided, or Median)	
190 FT	SINGLE SIDED

**Performance**

Average Illuminance, $E_{AVE}$ (fc)	Uniformity Ratio, $E_{AVE}/E_{MIN}$		
0.8	3.0		
Average Luminance, $L_{AVE}$ (cd/m <sup>2</sup> )	Uniformity Ratio, $L_{AVE}/L_{MIN}$	Uniformity Ratio, $L_{MAX}/L_{MIN}$	Veiling Luminance Ratio, $L_v/L_{MIN}$
N/A	N/A	N/A	0.3:1

**Light Trespass**

Distance to ROW (behind pole)	Max. Horizontal Illuminance at ROW, E	Max. Vertical Illuminance at ROW, E
N/A	N/A	N/A

**Notes**

- Set Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.
- Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to roadway.
- Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.
- Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions above.

CALCULATIONS ARE TO BE PERFORMED IN ONE DIRECTION ONLY.  
COMPLIANCE WITH PERFORMANCE CRITERIA SHALL BE HELD TO ONE SIGNIFICATN DIGIT.

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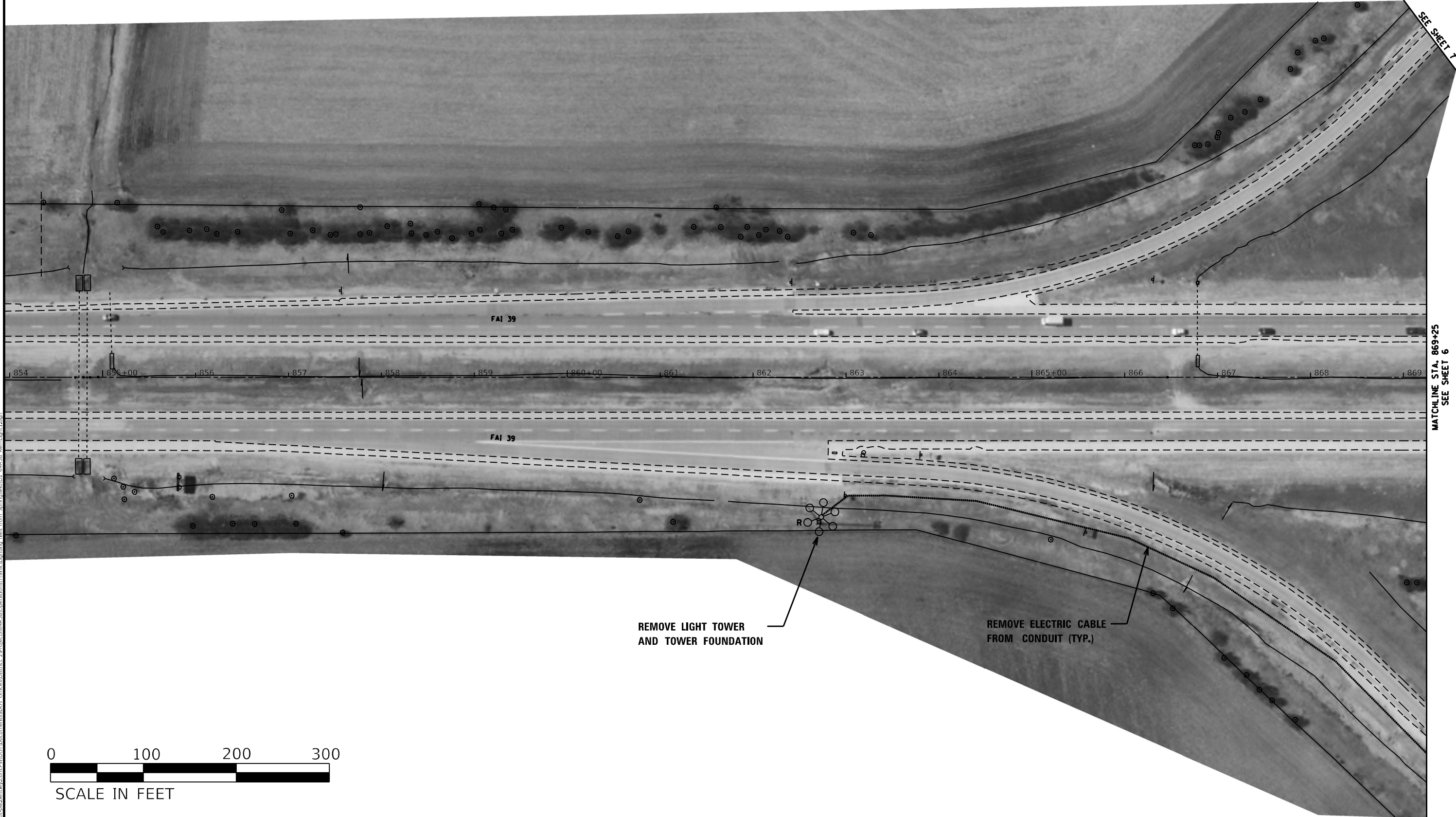
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

WIRING DIAGRAM AND LUMINAIRE PERFORMANCE TABLE

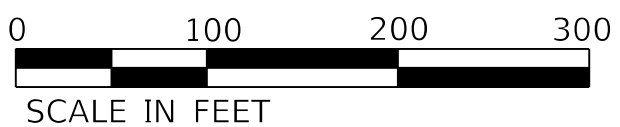
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F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	ILU 2023-3	LEE	12	4
CONTRACT NO. 64R58				
ILLINOIS FED. AID PROJECT				



SEE SHEET 7

MATCHLINE STA. 869+25  
SEE SHEET 6



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LIGHTING REMOVAL PLAN  
US-30 & IL-39**

SCALE: SHEET OF SHEETS STA. TO STA.

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	ILU 2023-3	LEE	12	5
CONTRACT NO. 64R58				
ILLINOIS FED. AID PROJECT				

MATCHLINE STA. 3329+00  
SEE SHEET 7



MATCHLINE STA. 869+25  
SEE SHEET 5

MATCHLINE STA. 884+20  
SEE SHEET 8

870+00 871 872 873 874 875+00 876 877 878 879 880+00 881 882 883 884

FAI 39

FAI 39

REMOVE ELECTRIC CABLE  
FROM CONDUIT (TYP.)

REMOVE ELECTRIC CABLE  
FROM CONDUIT (TYP.)

REMOVE LIGHT TOWER  
AND TOWER FOUNDATION

REMOVE EXISTING  
LIGHTING CONTROLLER

REMOVE EXISTING  
ELECTRIC SERVICE



SCALE IN FEET

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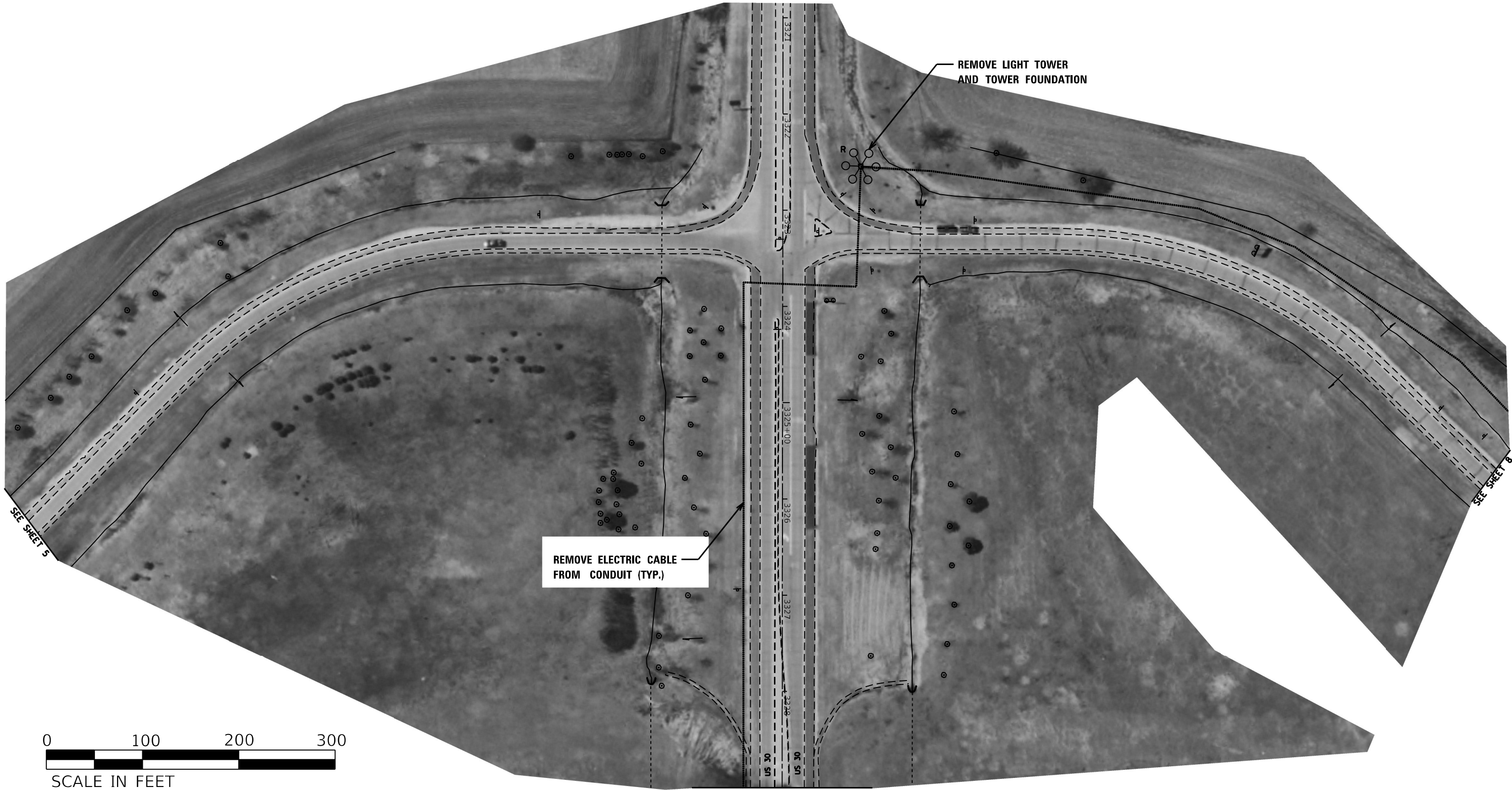
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	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHTING REMOVAL PLAN  
US-30 & IL-39

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	ILU 2023-3	LEE	12	6
CONTRACT NO. 64R58				
ILLINOIS FED. AID PROJECT				



MATCHLINE STA. 3329+00  
SEE SHEET 6

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

**LIGHTING REMOVAL PLAN**  
**US-30 & IL-39**

SCALE:      SHEET      OF      SHEETS      STA.      TO      STA.

F.A.I RTE: 39	SECTION ILU 2023-3	COUNTY LEE	TOTAL SHEETS 12	SHEET NO. 7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64R58	



SEE SHEET 7

MATCHLINE STA. 884+20  
SEE SHEET 6

REMOVE ELECTRIC CABLE  
FROM CONDUIT (TYP.)

REMOVE LIGHT TOWER  
AND TOWER FOUNDATION

1885+00 1886 1887 1888 1889 1890+00 1891 1892 1893 1894 1895+00 1896 1897 1898 1899

FAI 39

FAI 39



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHTING REMOVAL PLAN  
US-30 & IL-39

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	ILU 2023-3	LEE	12	8
CONTRACT NO. 64R58				
ILLINOIS FED. AID PROJECT				



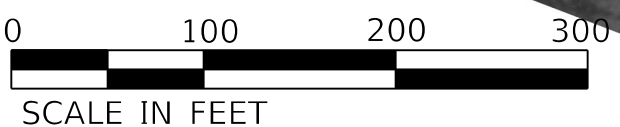
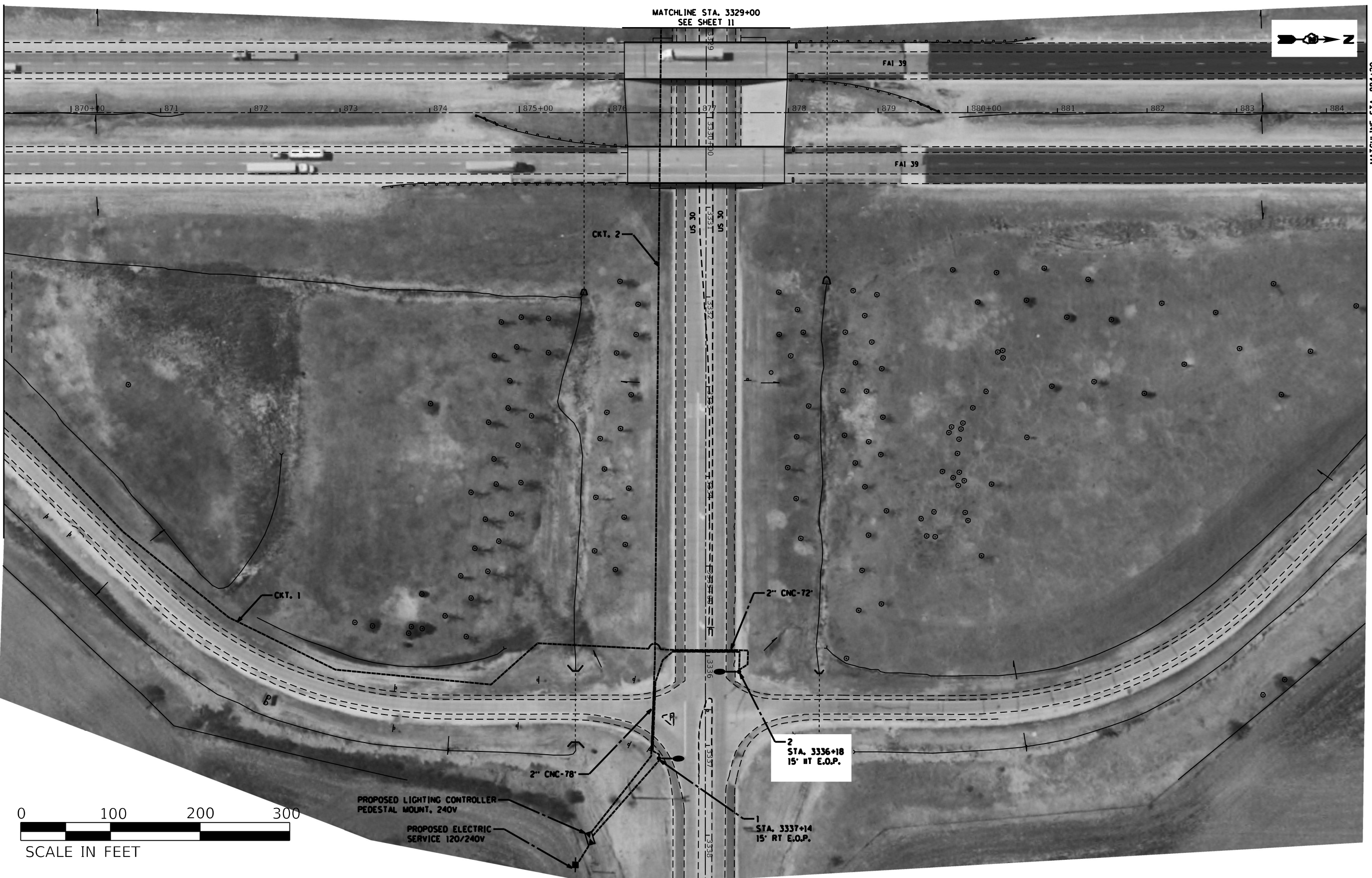


MATCHLINE STA. 3329+00  
SEE SHEET 11



MATCHLINE STA. 869+25  
SEE SHEET 9

MATCHLINE STA. 884+20  
SEE SHEET 12



PROPOSED LIGHTING CONTROLLER  
PEDESTAL MOUNT, 240V

PROPOSED ELECTRIC  
SERVICE 120/240V

2  
STA. 3336+18  
15' RT E.O.P.

1  
STA. 3337+14  
15' RT E.O.P.

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DRAWN -	REVISED -	
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN  
US-30 & IL-39**

SCALE: SHEET OF SHEETS STA. TO STA.

F-AI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	ILU 2023-3	LEE	12	10
CONTRACT NO. 64R58				
ILLINOIS FED. AID PROJECT				

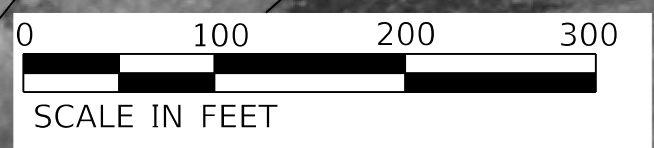
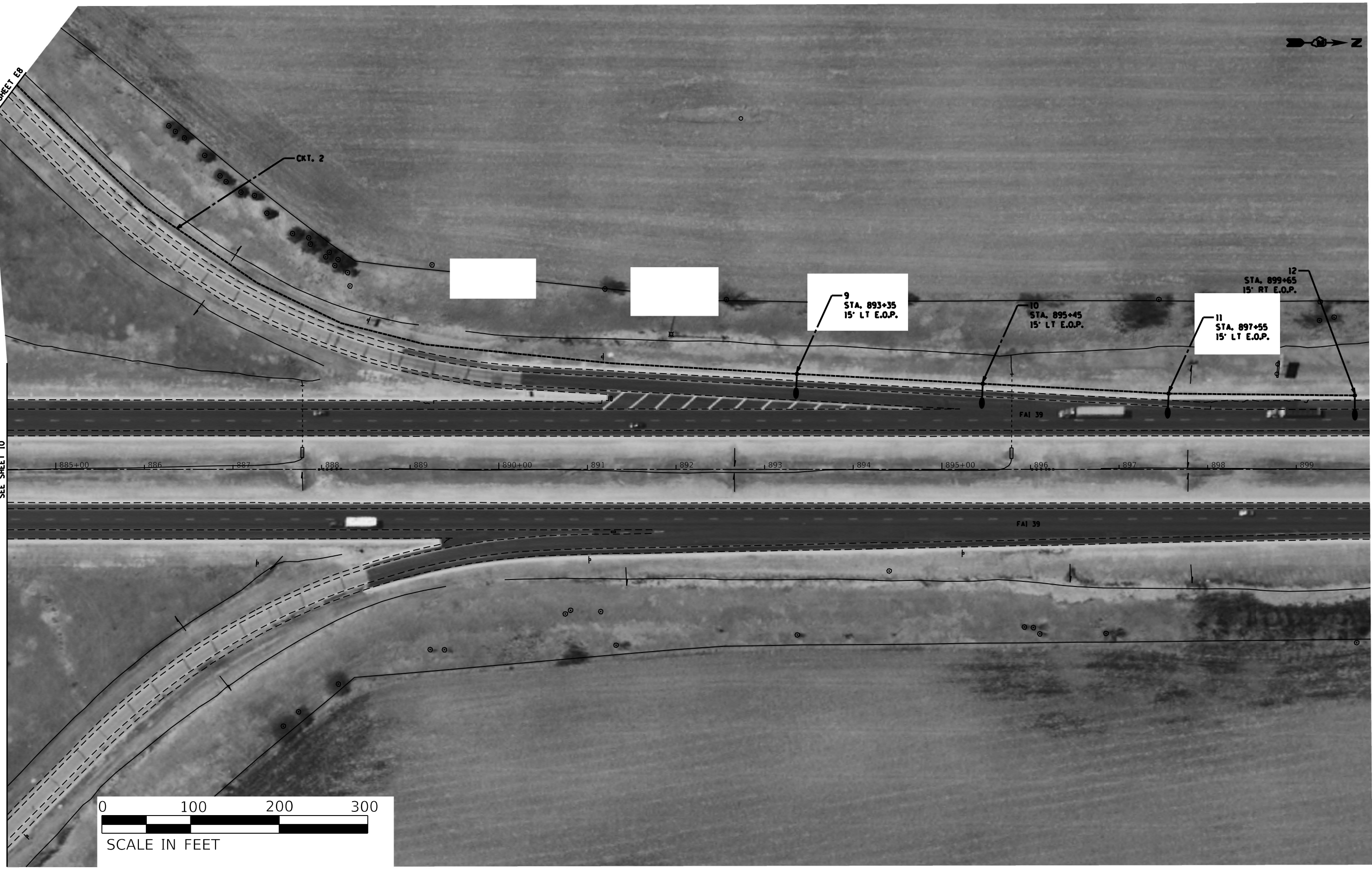




SEE SHEET E8

MATCHLINE STA. 884+20  
SEE SHEET 10

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**STATE OF ILLINOIS  
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**PROPOSED LIGHTING PLAN  
US-30 & IL-39**

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FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	ILU 2023-3	LEE	12	12
CONTRACT NO. 64R58				
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