

01-20-2023 LETTING ITEM 003

FOR INDEX OF SHEETS & STATE STANDARDS
SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

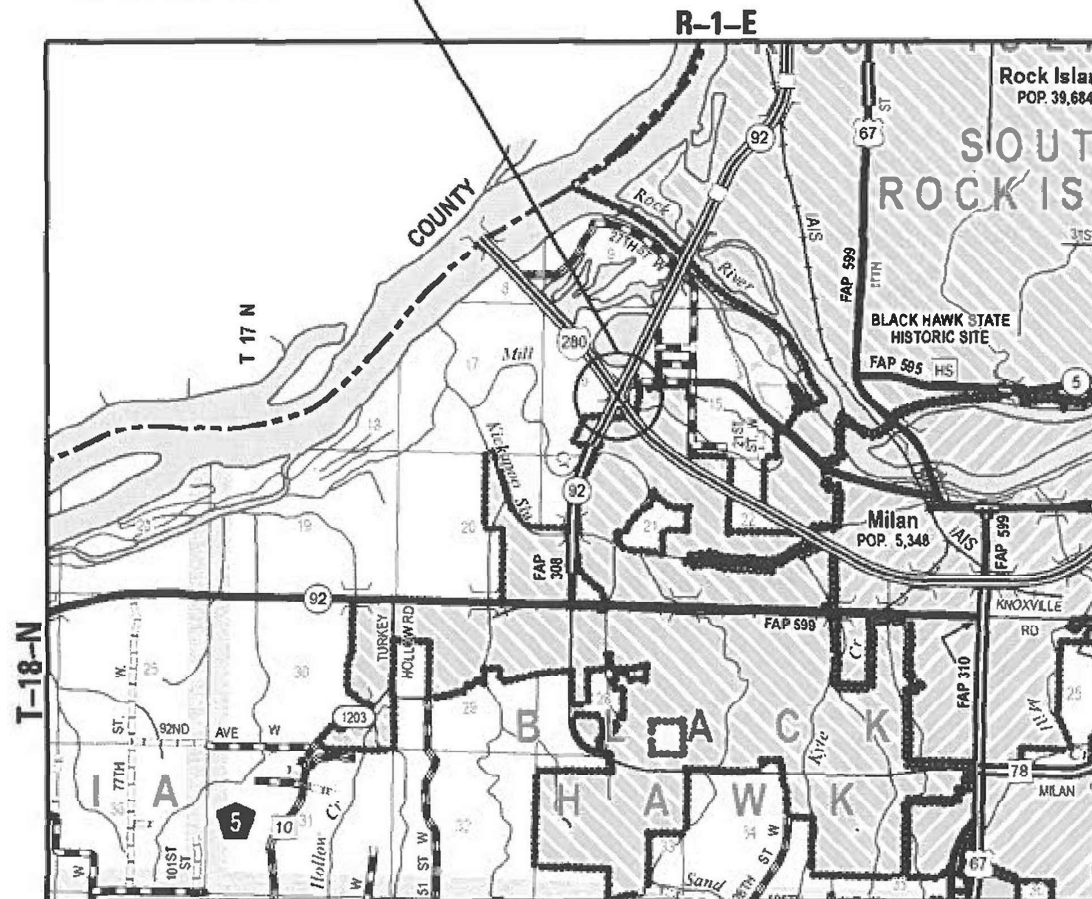
F.A.I. ROUTE 280 (I-280)
SECTION (81-1-1)HL
PROJECT: NHPP-JBM5(315)
ROCK ISLAND COUNTY
C-92-045-19

FAI	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
280	I-280	(81-1-1)HL	ROCK ISLAND	8	1

CONTRACT NO. 64N68
D-92-033-19



PROJECT LOCATION
IL 92 at I-280



PROJECT ENGINEER: SCOTT KULLERSTRAND (815) 284-5468

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

CONTRACT NO. 64N68

FAI 280 I-280 SECTION (81-1-1)HL ROCK ISLAND COUNTY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED October 7, 2022

[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 9, 2022

[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

December 9, 2022

[Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

STATE STANDARDS

INDEX OF SHEETS








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- 701456-05 PARTIAL EXIT RAMP CLOSURE FREEWAY/EXPRESSWAY
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- 701901-08 TRAFFIC CONTROL DEVICES
- 821101-02 LUMINAIRE WIRING IN POLE
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- 830011-03 LIGHT POLE STEEL MAST ARM
- 836001-04 LIGHT POLE FOUNDATION
- 838001-01 BREAKAWAY DEVICES

GENERAL NOTES

1. NO WORK SHALL BE ALLOWED UNTIL ALL COMPONENTS TO COMPLETE THE LIGHTING SYSTEM HAVE BEEN DELIVERED.
2. EXISTING LIGHTING TO BE REMOVED SHALL REMAIN UNTIL PROPOSED LIGHTING SYSTEM IS OPERATIONAL.
3. INSTALL NEW UNIT DUCT IN UNDERGROUND CASING UNDER THE ROADWAY AS SHOWN ON PLANS.
4. PROPOSED OFFSETS ARE A NOMINAL 30' FROM EDGE OF LANE. ENGINEER WILL DETERMINE EXACT LOCATIONS.
5. SIGNS ATTACHED TO LIGHT POLES SHALL BE REMOVED, PRESERVED AND REINSTALLED. THE COST OF THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR REMOVAL OF THE LIGHTING UNIT, NO SALVAGE.
6. CALL JASON DALE, IOWA DOT, 515-239-1995 TWO WEEKS PRIOR TO CONSTRUCTION FOR A LOCATE OF ELECTRIC FEED FOR EXISTING CCTV POLE ON WEST SIDE OF IL 92.
7. THE FINISH EARTHWORK SHALL HAVE A VEGETATION-SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED. THIS SOIL WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE LIGHTING PAY ITEMS.

LEGEND

-  PROPOSED ROADWAY LIGHTING UNIT, 40' M.H., LED HORIZONTAL MOUNT 240V LUMINAIRE, BREAKAWAY COUPLINGS ON 6' METAL FOUNDATION WITH POLE SETBACK OF 30' FROM EDGE OF PAVEMENT, UNLESS NOTED OTHERWISE.
-  PROPOSED LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240V.
-  PROPOSED UNIT DUCT, SIZE AS NOTED.
-  UNDERGROUND CONDUIT CASING, CNC, 2" DIA.
-  EXISTING LIGHTING UNIT AND FOUNDATION TO BE REMOVED (POLE NUMBER NOTED).
-  EXISTING SIGN LIGHTING UNIT TO BE REMOVED
-  EXISTING LIGHTING CONTROLLER TO BE REMOVED.

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PLOT SCALE = 1/2" = 100'	DRAWN -	REVISED -		SCALE	SHEET OF SHEETS	STA. TO STA.	(8) 1:1-DHL	ROCK ISLAND	8	2
PLOT DATE = Nov 22 2022 08:16:22 AM	CHECKED -	REVISED -						CONTRACT NO. 64N68		
	DATE	REVISED						ILLINOIS FED AID PROJECT		

SCHEDULE OF QUANTITIES

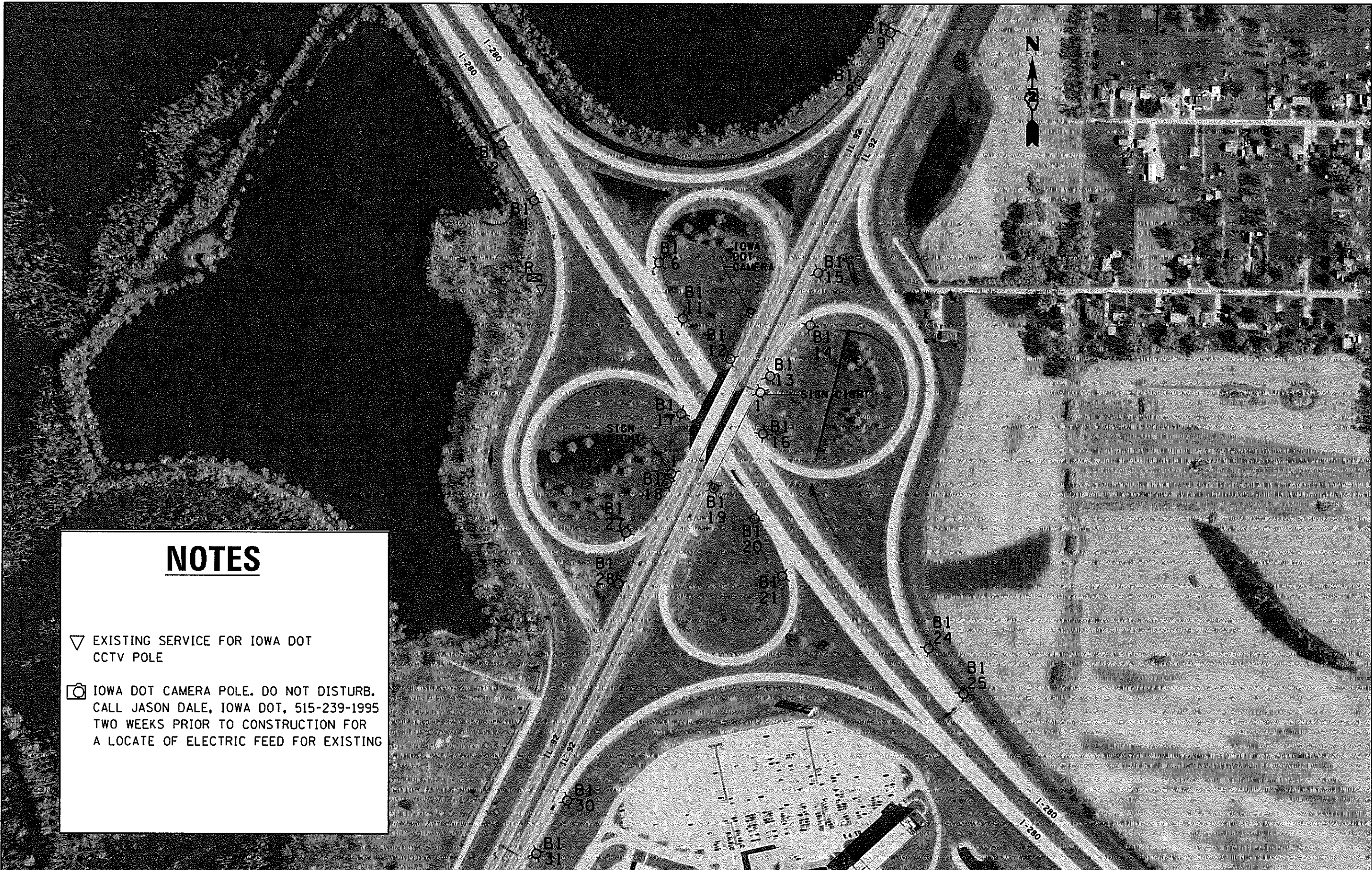
0021
URBAN
90% FED
10% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
67100100	MOBILIZATION	L SUM	1
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	6
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	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 CONDUIT, 2" DIA.	FOOT	815
81603000	UNIT DUCT, 600V, 2-1C NO.8, 1/C NO.8 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	8460
81603010	UNIT DUCT, 600V, 2-1C NO.10, 1/C NO.10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	2220
82110008	LUMINAIRE, LED, ROADWAY, OUTPUT. DESIGNATION H	EACH	24
82500330	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	1
83060340	LIGHT POLE, GALVANIZED STEEL, 40 FT. M.H., 12 FT. MAST ARM	EACH	24
83600356	LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8 5/8" X 6'	EACH	24
83800650	BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN	EACH	96
84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	22
84200804	REMOVAL OF POLE FOUNDATION	EACH	22
84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	1
84500130	REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	8460
X8420506	REMOVAL OF EXISTING SIGN LIGHTING UNIT WITH NO SALVAGE	EACH	2
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.8

• SPECIALTY ITEMS

MODEL: D:\dell\...
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USER NAME → Kristino Hill PLOT SCALE → 1/4" = 1'-0" PLOT DATE → Aug-03-2022 10:44:54 AM	DESIGNED - _____ DRAWN - _____ CHECKED - _____ DATE - _____	REVISED - _____ REVISED - _____ REVISED - _____ REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES IL 92 AT I-280	F.A.I. RTE. 280 SECTION (B1:1)HL COUNTY ROCK ISLAND TOTAL SHEETS 8 SHEET NO. 3 CONTRACT NO. 64N68 ILLINOIS FED. AID PROJECT
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NOTES

- ▽ EXISTING SERVICE FOR IOWA DOT CCTV POLE
- 📷 IOWA DOT CAMERA POLE. DO NOT DISTURB. CALL JASON DALE, IOWA DOT, 515-239-1995 TWO WEEKS PRIOR TO CONSTRUCTION FOR A LOCATE OF ELECTRIC FEED FOR EXISTING

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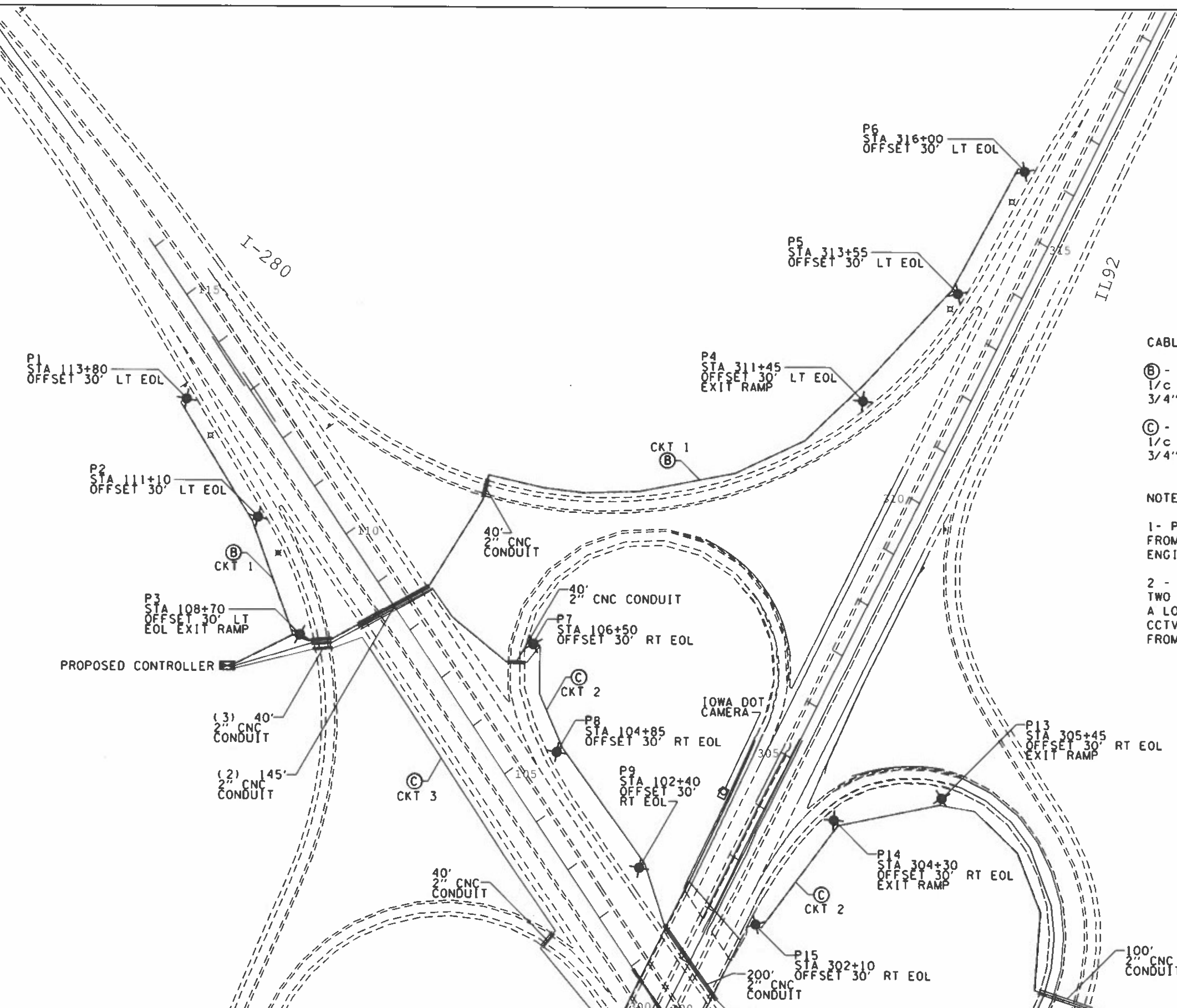
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PLOT SCALE	325 4438 / in.	CHECKED	REVISOR
PLOT DATE	Aug 03 2022 10:45:37 AM	DATE	REVISOR

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING REMOVAL PLAN
IL 92 AT I-280

SCALE _____ SHEET _____ OF _____ SHEETS STA _____ TO STA _____

F A J RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
280	(81-1-1)HL	ROCK ISLAND	8	4
CONTRACT NO. 64N68				
ILLINOIS FED AID PROJECT				



CABLE SCHEDULE:

- Ⓑ - UNIT DUCT, 600V, 2-1c No.10, 1/c No. 10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE
- Ⓒ - UNIT DUCT, 600V, 2-1c No.8, 1/c No. 8 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE

NOTES:

- 1- PROPOSED OFFSETS ARE A NOMINAL 30' FROM EDGE OF LANE. ENGINEER WILL DETERMINE EXACT LOCATIONS.
- 2 - CALL JASON DALE, IOWA DOT, 515-239-1995 TWO WEEKS PRIOR TO CONSTRUCTION FOR A LOCATE OF ELECTRIC FEED FOR EXISTING CCTV POLE ON WEST SIDE OF IL 92. IT IS FED FROM THE AREA NEAR EXISTING LIGHTING CONTROLLER.

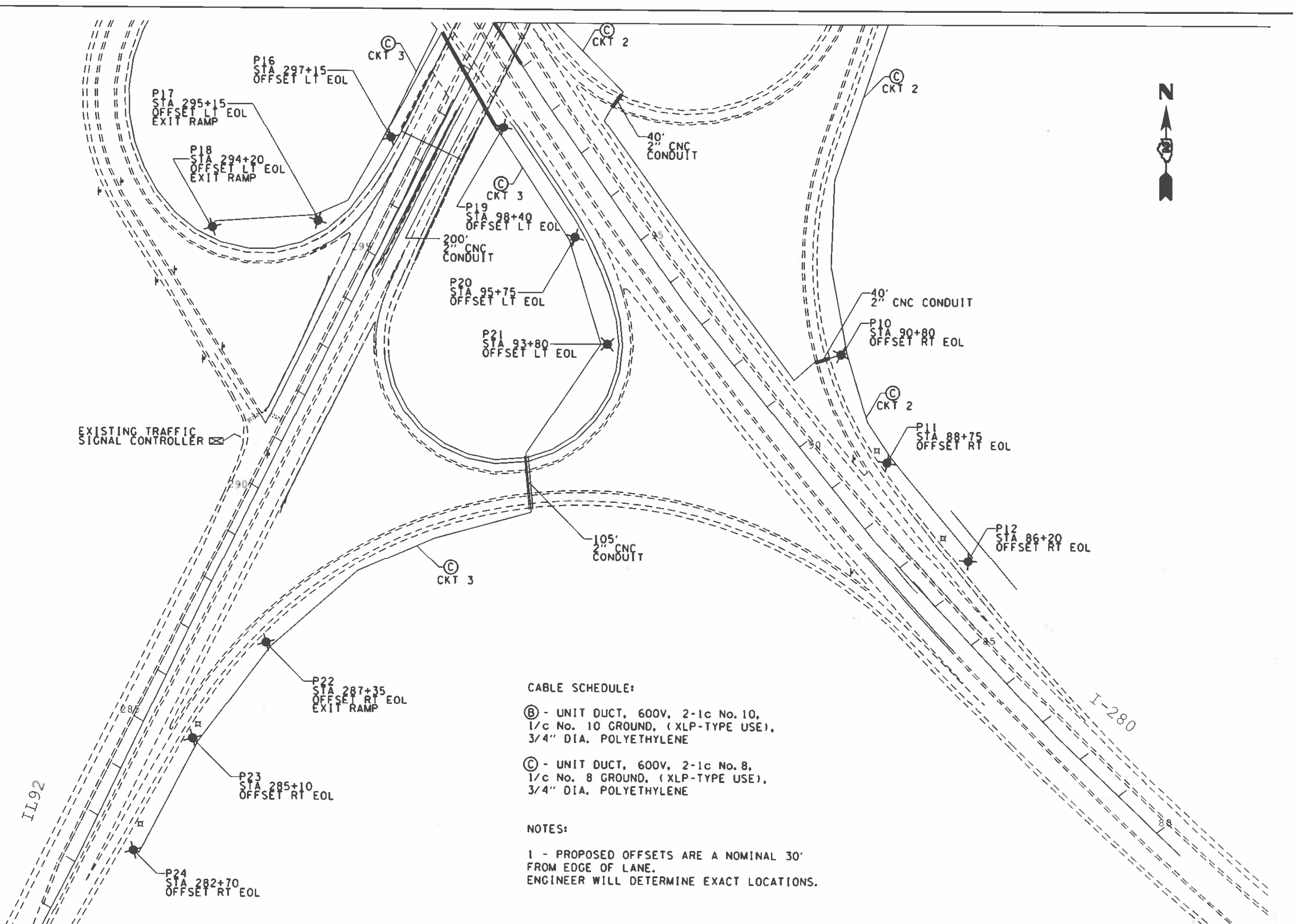
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PLOT DATE: = Nov-22-2022 08:20:31 AM	CHECKED: _____	REVISION: _____
	DATE: _____	REVISION: _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN	
IL 92 AT I-280	
SCALE: _____	SHEET _____ OF _____ SHEETS
STA _____	TO STA: _____

F A I R T E -280	SECTION - (81.1) JHL	COUNTY ROCK ISLAND	TOTAL SHEETS 8	SHEET NO. 5
CONTRACT NO. 64N68			ILLINOIS FED AID PROJECT	



CABLE SCHEDULE:

- Ⓑ - UNIT DUCT, 600V, 2-1c No. 10, 1/c No. 10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE
- Ⓒ - UNIT DUCT, 600V, 2-1c No. 8, 1/c No. 8 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE

NOTES:

1 - PROPOSED OFFSETS ARE A NOMINAL 30' FROM EDGE OF LANE. ENGINEER WILL DETERMINE EXACT LOCATIONS.

MODEL: PLOTIN; FILE NAME: \\ITL\PROJECTS\WORKING\IL92\AS.DWG; DZ DESIGN: ILL92

USER NAME = Kishore M	DESIGNED =	REVISED =
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PLOT DATE = Nov 27 2022 08:24:04 AM	CHECKED =	REVISED =
	DATE =	REVISED =

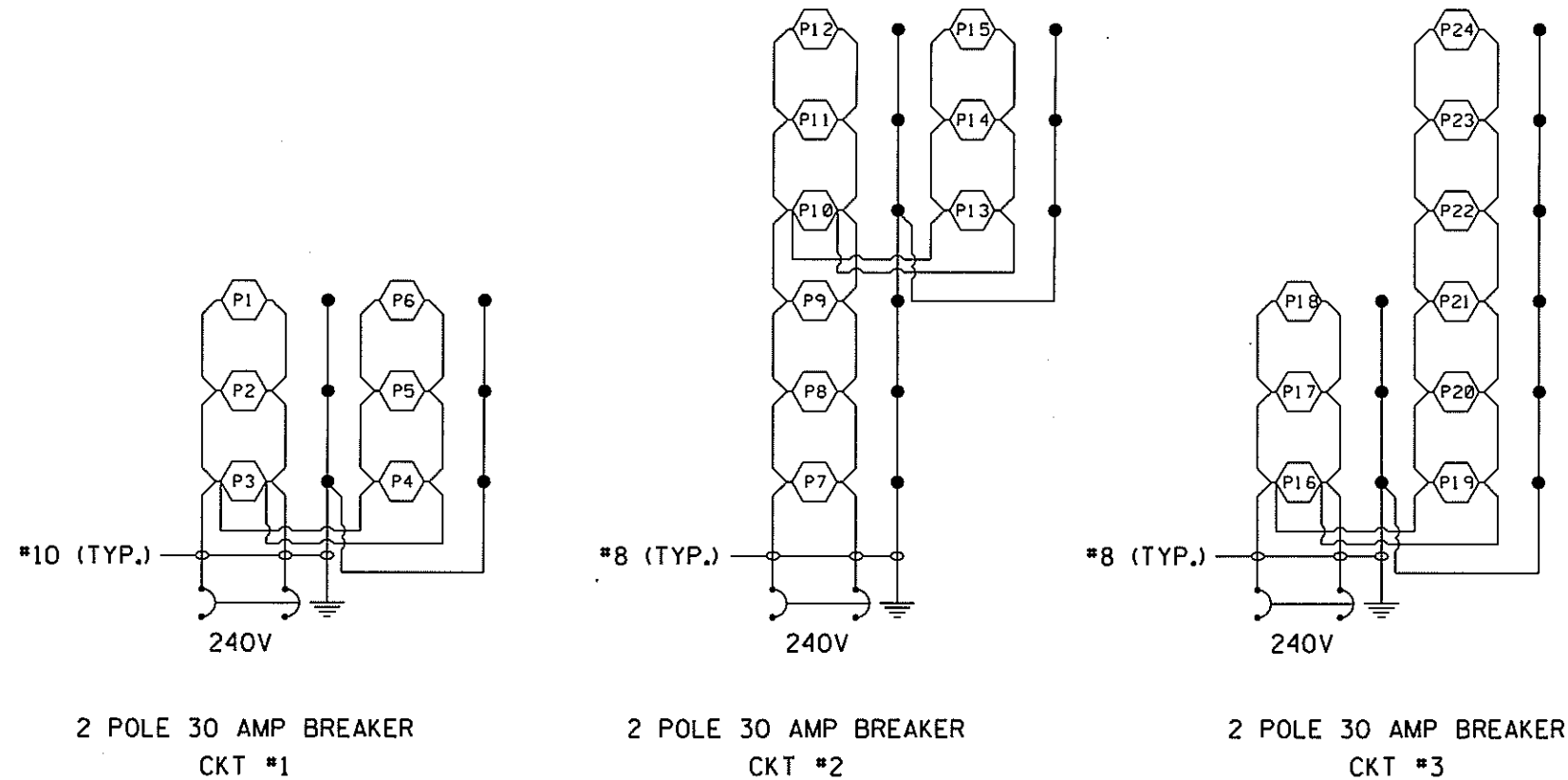
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN			
IL 92 AT I-280			
SCALE	SHEET	OF	SHEETS
STA.		TO STA.	




FAI RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
280	(81-1-1)HL	ROCK ISLAND	8	6
CONTRACT NO. 64N68			ILLINOIS FED AID PROJECT	

PROPOSED LIGHTING WIRING DIAGRAMS

PROPOSED LIGHTING CONTROLLER
IL-92 AT I-280
240V



LEGEND

-  PROPOSED LED LUMINAIRE. NUMBER INSIDE CIRCLE INDICATES FIXTURE NUMBER.
-  GROUND ROD
-  PROPOSED CABLE (SIZE AS NOTED)

NOTES

1. 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.

MODEL: 06/2011
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	DRAWN - _____	REVISED - _____
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PLOT DATE = Aug-03-2022 10:46:50 AM	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING WIRING DIAGRAMS
IL 92 AT I-280

SCALE: _____ SHEET ___ OF ___ SHEETS STA. _____ TO STA. _____

F.A.J. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
280	(81)-1(I)HL	ROCK ISLAND	8	7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64N68	

LUMINAIRE PERFORMANCE TABLE

PROJECT

DATE	CONTRACT NUMBER	SECTION NUMBER	COUNTY
6/1/2020	64N68	(81-1-1)HL	ROCK ISLAND

MARKED ROUTE NUMBER	MUNICIPALITY
IL-92 AT I-280	ROCK ISLAND

ROADWAY

LANE WIDTH	*OF LANES	MEDIAN WIDTH	I.E.S SURFACE CLASSIFICATION	0-ZERO VALUE
12	2	N/A	R3	0.07

STRUCTURE

MOUNTING HEIGHT	ARM LENGTH	SET BACK	NUMBER OF LUMINAIRES (HIGHMAST & SIGN LIGHTING ONLY)
40 FT	12 FT	30 FT	N/A

LUMINAIRE

DESCRIPTION	I.E.S. LATERAL DISTRIBUTION	I.E.S. VERTICAL DISTRIBUTION
LED, ROADWAY, OUTPUT DESIGNATION H	TYPE III	MEDIUM

TOTAL LIGHT LOSS FACTOR (LLF)	BUG RATING	SHIELDS	DIMMING PROTOCOL
0.684	U = 0	N/A	0-10V

LAYOUT

SPACING (TO NEAREST 5 FT)	CONFIGURATION (OPPOSITE, STAGGERED, 1 SIDED, OR MEDIUM)
230 FT	SINGLE SIDED

PERFORMANCE

AVERAGE ILLUMINANCE, E_{AVE} (FC)	UNIFORMITY RATIO, E_{AVE} / E_{MIN}
0.6	3.0

AVERAGE LUMINANCE, L_{AVE} (CD/M ²)	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	0.4:1

LIGHT TRESSPASS

DISTANCE TO ROW (BEHIND POLE)	MAX. HORIZONTAL ILLUMINANCE AT ROW, E	MAX. VERTICAL ILLUMINANCE AT ROW, E
N/A	N/A	N/A

NOTES

1. 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.
2. LIGHTING CALCULATIONS SHALL BE PERFORMED WITH ALL LUMINAIRES ORIENTED TOWARD AND PERPENDICULAR TO ROADWAY.
3. TOTAL LIGHT LOSS FACTOR (LLF) = THE PRODUCT OF "LUMEN MAINTENANCE" (LLD) = 0.9, "DIRT DEPRECIATION" (LDD) = 0.8, AND "EQUIPMENT FACTORS" (EF) = 0.95.
4. PERFORMANCE REQUIREMENTS SHALL BE THE MINIMUM ACCEPTABLE STANDARDS OF PHOTOMETRIC PERFORMANCE FOR THE LUMINAIRE, BASED ON THE GIVEN CONDITIONS ABOVE.

CALCULATIONS SHALL BE PERFORMED WITH 2 LANES IN ONE DIRECTION ONLY

INITIAL LUMENS MAY EXCEED THE VALUES GIVEN IN TABLE IN ART. 1067.06 OF THE PROJECT SPECIAL PROVISIONS "LUMINAIRE, LED (BDE)" (25,200 LUMENS).

PERFORMANCE CRITERIA SHALL BE HELD TO ONE SIGNIFICANT DIGIT.

MODEL: Default
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	DRAWN - _____	REVISED - _____
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LUMINAIRE PERFORMANCE TABLE	
IL 92 AT I-280	
SCALE _____	SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F A I RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
280	(81-1-1)HL	ROCK ISLAND	8	8
CONTRACT NO 64N68			ILLINOIS FED AID PROJECT	