



CODE NO.	ITEM	UNIT	TOTAL QUANTITY	RURAL STATE	
				CONSTR. CODE	
				ROADWAY	
		0004		S.N.	
54213450	END SECTIONS 15"	EACH	6	6	
54213453	END SECTIONS 18"	EACH	10	10	
54215543	METAL END SECTIONS 8"	EACH	1	1	
542C0213	PIPE CULVERTS, CLASS C, TYPE 1 8"	FOOT	34	34	
542C0217	PIPE CULVERTS, CLASS C, TYPE 1 12"	FOOT	451	451	
542C0220	PIPE CULVERTS, CLASS C, TYPE 1 15"	FOOT	86	86	
542C0223	PIPE CULVERTS, CLASS C, TYPE 1 18"	FOOT	303	303	
56200300	WATER SERVICE LINE, 1"	FOOT	9	9	
56200500	WATER SERVICE LINE, 1 1/2"	FOOT	67	67	
60605900	COMBINATION CONCRETE CURB & GUTTER, TYPE B-9.12	FOOT	76	76	
63400105	GUARD POSTS	EACH	45	45	
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	4	4	
67100100	MOBILIZATION	LSUM	1	1	
* 72000100	SIGN PANEL - TYPE 1	SQ FT	82	82	
* 73000100	WOOD SIGN SUPPORT	FOOT	331	331	

\* SPECIALTY ITEM

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	RURAL STATE	
				CONSTR. CODE	
				ROADWAY	
		0004		S.N.	
* 78001100	PAINT PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	102.8	102.8	
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2,696	2,696	
* 78001130	PAINT PAVEMENT MARKING - LINE 6"	FOOT	2,665	2,665	
* 80400100	ELECTRIC SERVICE INSTALLATION	EACH	1	1	
* 81028720	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1" DIA.	FOOT	110	110	
* 81028750	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 2" DIA.	FOOT	102	102	
* 81603010	UNIT DUCT, 600V, 2-1/C NO. 10, 1/C NO. 10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	642	642	
* 81603063	UNIT DUCT, 600V, 4-1/C NO. 10, 1/C NO. GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	292	292	
* 81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	895	895	
* 83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	42	42	
* 84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	4	4	
* 84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1	1	
* 89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,685	2,685	
X0300019	REMOVE AND REINSTALL PARKING BLOCKS	EACH	70	70	

△ REV. 4-13-17

FILE NAME * sht.03 Sum Qvan.dgn	USER NAME * stevch	DESIGNED - R.H.D.	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default		DRAWN - B.T.M.	REVISED -		<b>BEALL WOODS STATE PARK AND NATURE PRESERVE</b>			PARK ROADS 2017-02	WABASH	71	4
		CHECKED - R.H.D.	REVISED -		SCALE: NTS	SHEET 4 OF 71 SHEETS	STA.				CONTRACT NO. 46418
		DATE - 2/3/17	REVISED -				TO STA.				ILLINOIS FED. AID PROJECT

JOB NO. 250-141-E VASCONCELLES ENGINEERING CORP. DESIGN FIRM REGISTRATION NUMBER 184-002107



INDEX OF SHEETS

- L-1 INDEX OF SHEETS AND LIGHTING SUMMARY OF QUANTITIES
- L-2 EXISTING LIGHTING REMOVAL PLAN
- L-3 EXISTING LIGHTING REMOVAL PLAN
- L-4 PROPOSED LIGHTING PLAN
- L-5 PROPOSED LIGHTING PLAN
- L-6 PROPOSED LIGHTING PLAN
- L-7 WIRING DIAGRAMS
- L-8 LIGHT POLE ALUMINUM DETAIL (SHEET 1 OF 2)
- L-9 LIGHT POLE ALUMINUM DETAIL (SHEET 2 OF 2)
- L-10 CONDUIT ROUTING DETAIL
- L-11 ELECTRICAL DETAILS
- L-12 ELECTRICAL DETAILS

HIGHWAY STANDARDS

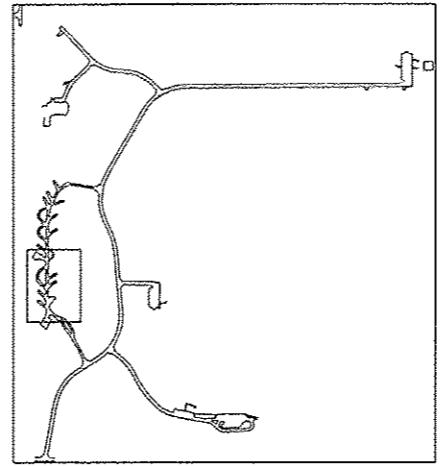
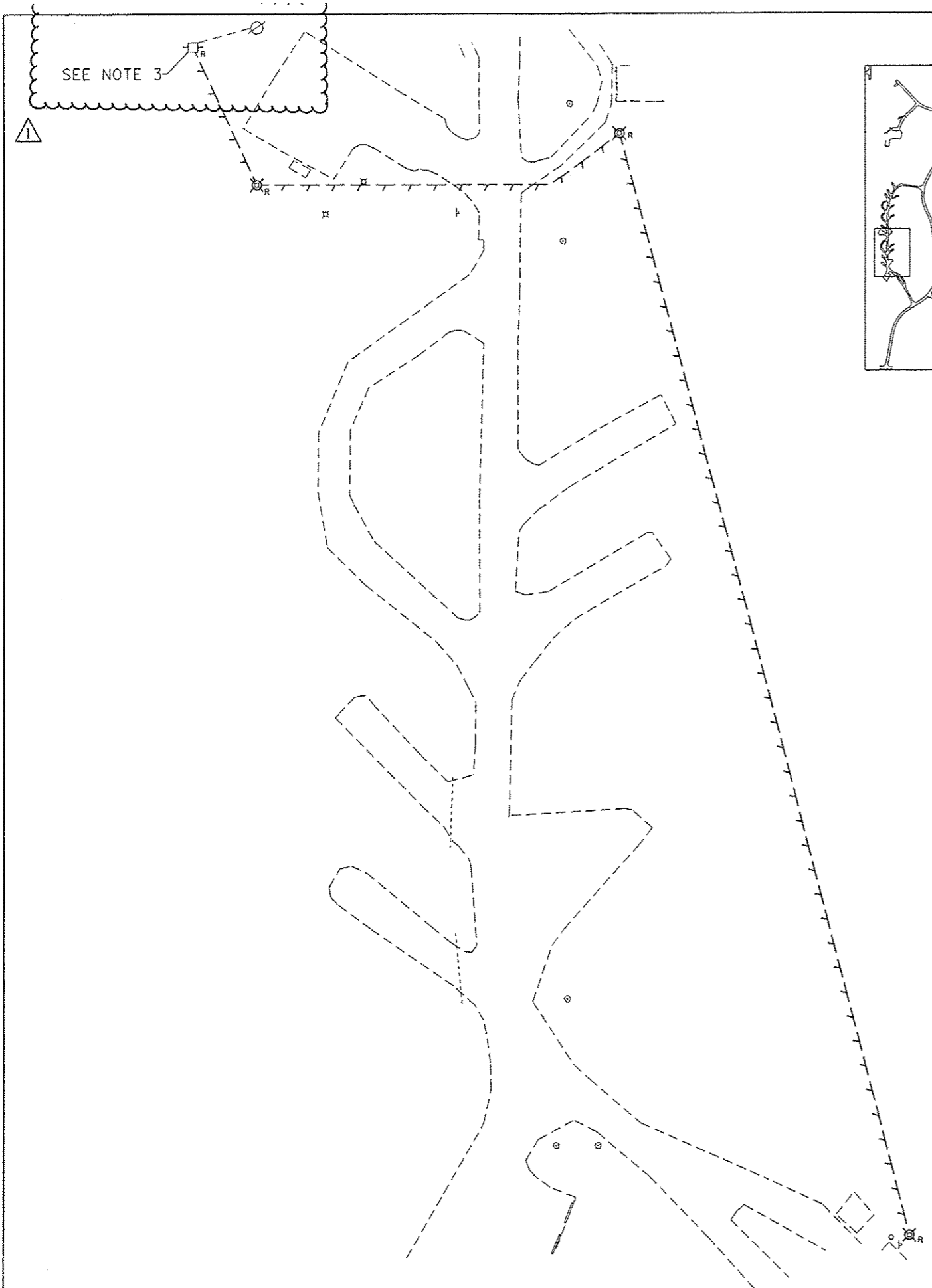
- 821101-02 LUMINAIRE WIRING IN POLE
- 825011-03 LIGHTING CONTROLLER PEDESTAL MOUNTED, 240V
- 836001-02 LIGHT POLE FOUNDATION




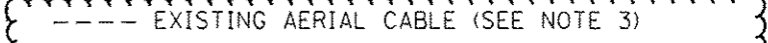

LIGHTING SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				ROADWAY 0001 S.N.
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1	
81028720	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1" DIA.	FOOT	110	
81028750	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 2" DIA.	FOOT	102	
81603010	UNIT DUCT, 600V, 2-1/C NO. 10, 1/C NO. 10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	642	
81603063	UNIT DUCT, 600V, 4-1/C NO. 10, 1/C NO. GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	292	
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	895	
83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	42	
84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	4	
84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1	
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,685	
* X0326498	GFCI 20 AMP DUPLEX RECEPTACLE	EACH	4	
* X1400094	LUMINAIRE, LED, HORIZONTAL MOUNT, LOW WATTAGE	EACH	7	
*	DISCONNECT SWITCH	EACH	3	
*	LIGHT POLE, SPECIAL, 30'	EACH	7	
*	SOLAR LED LIGHTING UNIT COMPLETE	EACH	1	

REV. 4-13-17

L-1



- LIGHTING LEGEND**
-  EXISTING LIGHTING UNIT WITH SERVICE DISCONNECT TO BE REMOVED
  -  EXISTING ELECTRIC SERVICE TO BE REMOVED
  -  EXISTING CABLE TO BE REMOVED
  -  EXISTING AERIAL CABLE (SEE NOTE 3)
  -  EXISTING WOOD POLE TO REMAIN IN PLACE

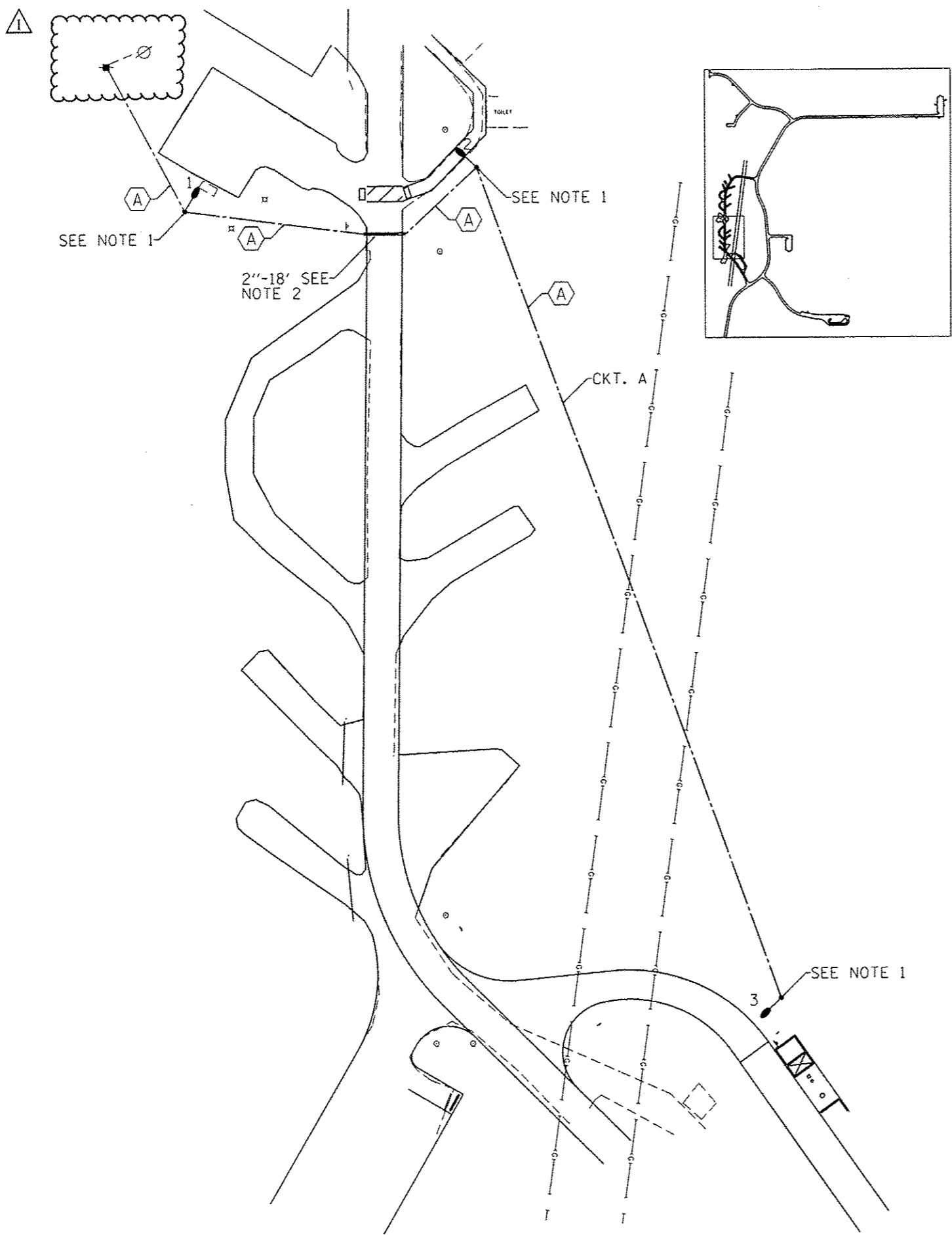
**NOTES**

1. REMOVE EXISTING CABLE IN CONDUIT. ABANDON CONDUIT IN PLACE.
2. THE COST OF REMOVAL OF THE SERVICE DISCONNECT SHALL BE INCLUDED IN THE COST OF REMOVAL OF THE LIGHT POLE.
3. THE NEW SERVICE SHALL BE INSTALLED AND OPERATIONAL PRIOR TO THE REMOVAL OF THE EXISTING SERVICE. THE CONTRACTOR SHALL RESTORE CABLE FEED TO 30AMP DISCONNECT SWITCH ON SERVICE POLE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE NEW SERVICE.

REV. 4-13-17

L-2

FILE NAME = sht_59 Electrical.dgn	USER NAME = Connor Bell	DESIGNED - R.H.D.	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EXISTING LIGHTING REMOVAL PLAN BEALL WOODS STATE CONSERVATION AREA</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 10.0000' / 1" =	DRAWN - B.T.M.	REVISED -					PARK ROADS 2017-02	WABASH	71	59
Default	PLOT DATE = 4/13/2017	CHECKED - R.H.D.	REVISED -		SCALE: NTS	SHEET 59 OF 71 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 46418		
		DATE - 2/3/17	REVISED -								



**LIGHTING LEGEND**

- PROPOSED LIGHTING UNIT  
ANODIZED ALUMINUM, 30' M.H., 1' M.A., 120V LED LUMINAIRE 1,  
120V PHOTOCELL, WITH 11-1/2" B.C. ON 5' x 24" DIA.  
CONCRETE FOUNDATION
- UNIT DUCT, SIZE AS INDICATED ON PLAN
- UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT,  
SCHEDULE 80, SIZE AS INDICATED ON PLAN
- PROPOSED ELECTRIC SERVICE INSTALLATION, 60 AMP,  
120/240 VOLT, SINGLE PHASE, 3 WIRE (SEE NOTE 3)
- EXISTING WOOD POLE TO REMAIN IN PLACE

**CABLE/CONDUIT SCHEDULE**

- ⬡ UNIT DUCT, 600V, 2-1C NO.10, 1/C NO.10 GROUND,  
(XLP-TYPE USE), 3/4" DIA. POLYETHYLENE

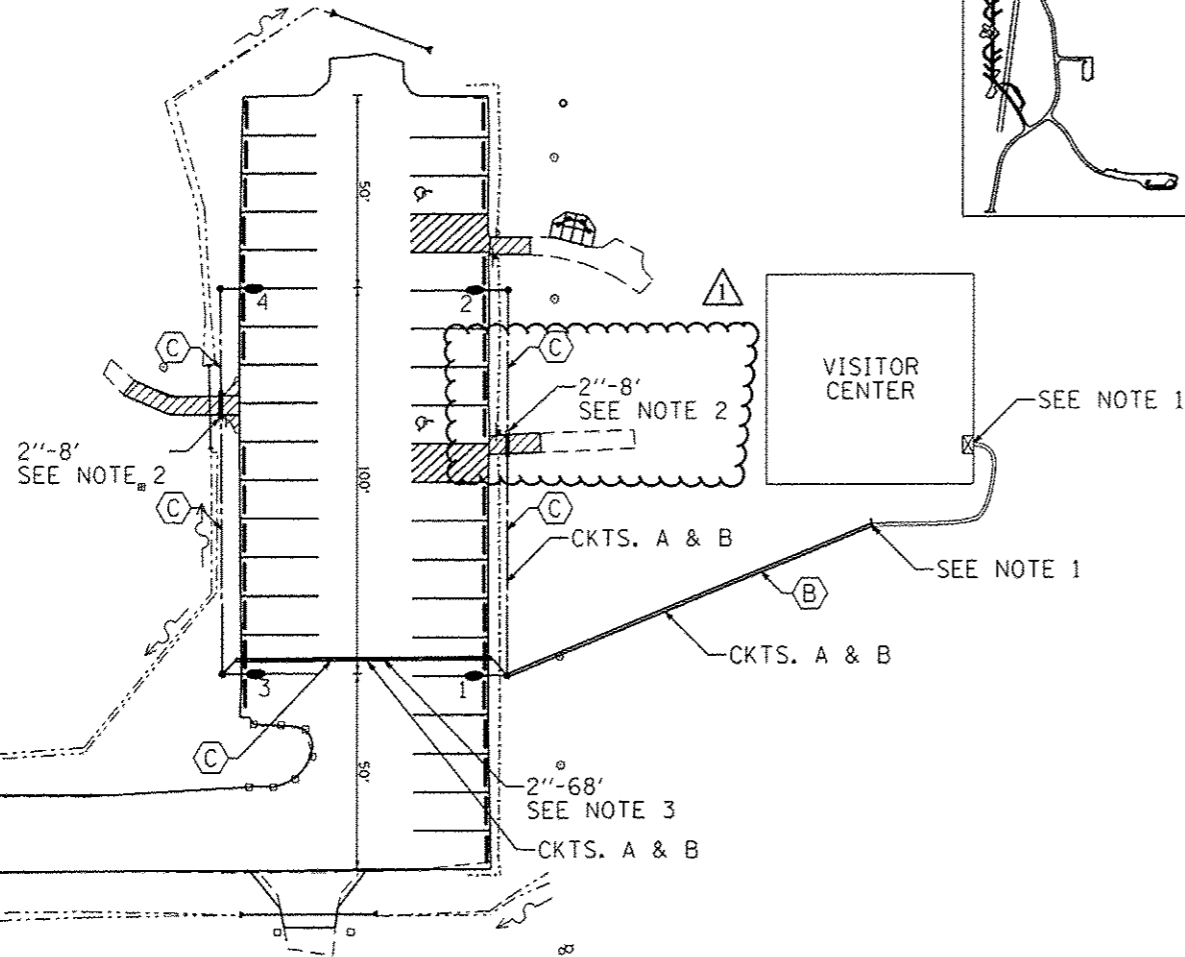
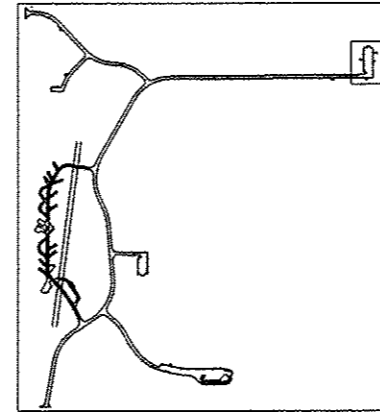
**LIGHTING POLE LOCATION**

POLE NUMBER	STATION	OFFSET
1	407+7.15	78.94' RT
2	406+99.06	36.30' LT
3	701+17.04	21.51' LT

- NOTES**
1. INSTALL NEW DISCONNECT SWITCH ON THE NEW LIGHT POLE. SEE SHEETS L-11 AND L-12 FOR ELECTRICAL DETAILS.
  2. 2" DIA. CNC. TO BE BORED UNDER DRIVEWAY.
  3. ACCORDANCE WITH THE "ELECTRIC SERVICE INSTALLATION" DETAIL SHOWN ON HIGHWAY STANDARD 825011-03

REV. 4-13-17

FILE NAME = shl.GI.Electrical.dgn	USER NAME = Connor Bell	DESIGNED - R.H.D.	REVISIONS -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED LIGHTING PLAN BEALL WOODS STATE CONSERVATION AREA</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - B.T.M.	REVISIONS -		SCALE: NTS	SHEET 61 OF 71 SHEETS	STA.	TO STA.	PARK ROADS 2017-02	WABASH	71	61
		CHECKED - R.H.D.	REVISIONS -		CONTRACT NO. 46418							
		DATE - 2/3/17	REVISIONS -		ILLINOIS FED. AID PROJECT							



**LIGHTING LEGEND**

● PROPOSED LIGHTING UNIT  
 ANODIZED ALUMINUM, 30' M.H., 1' M.A., 120V LED LUMINAIRE 1, 120V PHOTOCCELL, 120V POLE RECEPTACLE, WITH 11-1/2" B.C. ON 5' x 24" DIA. CONCRETE FOUNDATION

☒ EXISTING ELECTRICAL PANEL TO REMAIN IN PLACE

--- UNIT DUCT, SIZE AS INDICATED ON PLAN

==== UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, SCHEDULE 40, UNLESS OTHERWISE NOTED, SIZE AS INDICATED ON PLAN

**CABLE/CONDUIT SCHEDULE**

ⓑ 600V (XLP-TYPE USE) 4-1C NO.10, 1/C NO.10 GROUND IN UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1" DIA., SCHEDULE 40

ⓒ UNIT DUCT, 600V, 4-1C NO.10, 1/C NO.10 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE

**LIGHTING POLE LOCATION**

POLE NUMBER	STATION	OFFSET
1	140+39.76	36.56' RT
2	141+39.76	37.40' RT
3	140+40.66	37.17' LT
4	141+40.66	37.14' LT

- NOTES**
1. THE CONTRACTOR SHALL INTERCEPT EXISTING CONDUIT FOR PARKING LOT OUTSIDE OF BUILDING. INSTALL NEW 1" DIA. CNC, SCH. 40. USE METALLIC TO NON-METALLIC COUPLER/REDUCER. THE NEW CABLE FOR THE PARKING LOT LIGHTING AND RECEPTACLES SHALL BE CONNECTED TO 2-20AMP BREAKERS IN THE EXISTING ELECTRICAL PANEL INSIDE THE VISITOR CENTER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE ASSOCIATED ELECTRIC CABLE.
  2. 2" DIA. CNC, SCH. 80, TO BE BORED UNDER SIDEWALK.
  3. 2" DIA. CNC, SCH. 80, TO BE BORED UNDER PARKING LOT.
  4. THE CONTRACTOR SHALL SET POLES 5' BEHIND EDGE OF PAVEMENT.
  5. SEE SHEET L-10 FOR ELECTRICAL DETAILS.


△ REV. 4-13-17

L-5

FILE NAME = shl.62 Electrical.dgn	USER NAME = Connor Bell	DESIGNED - R.H.D.	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED LIGHTING PLAN BEALL WOODS STATE CONSERVATION AREA</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - B.T.M.	REVISED -		SCALE: NTS	SHEET 62 OF 71 SHEETS	STA.	PARK ROADS 2017-02	WABASH	71	62
		CHECKED - R.H.D.	REVISED -				TO STA.				
Default	PLOT DATE = 4/13/2017	DATE - 2/3/17	REVISED -					ILLINOIS FED. AID PROJECT			

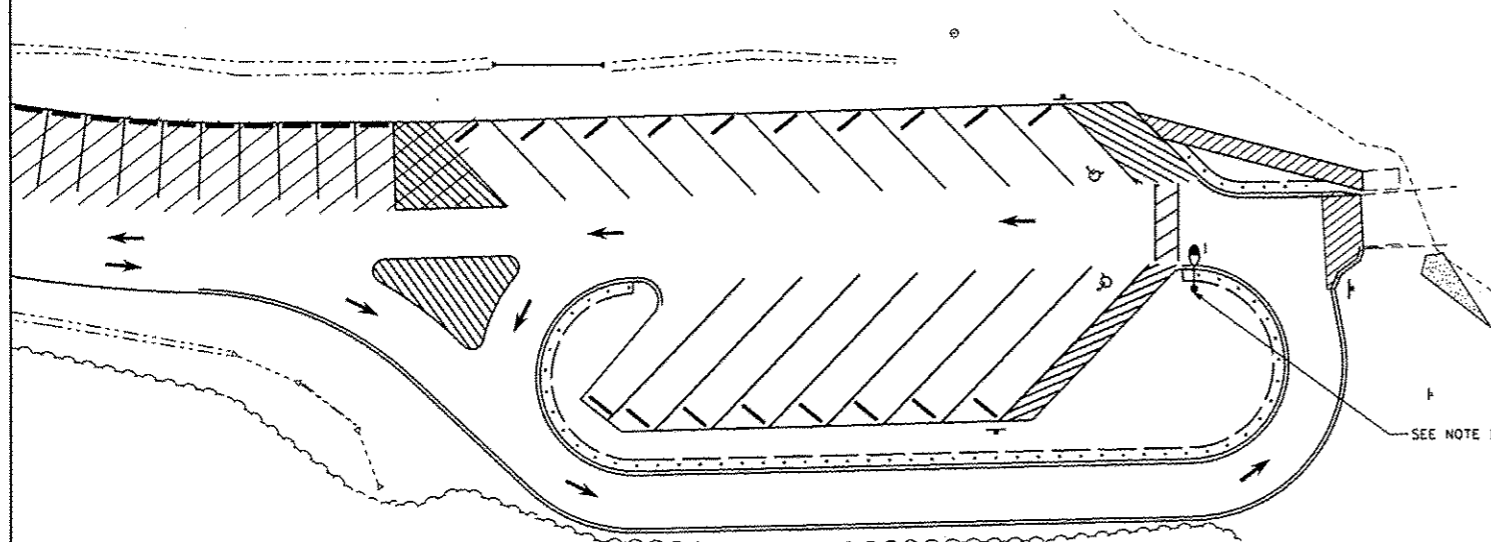
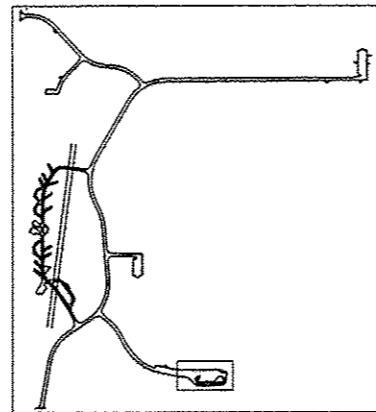
1

LIGHTING LEGEND


 PROPOSED SOLAR LED LIGHTING UNIT  
 GALVANIZED STEEL, 26' M.H., 1' M.A., 12/24V DC LED  
 LUMINAIRE 2, WITH 11-1/2" B.C. ON 7' x 24" DIA.  
 CONCRETE FOUNDATION

LIGHTING POLE LOCATION

POLE NUMBER	STATION	OFFSET
1	610+19.32	15.63' RT



NOTES

1. THE CONTRACTOR SHALL SET POLE AT LEAST 5' BEHIND EDGE OF PAVEMENT. FINAL LOCATION TO BE APPROVED BY THE ENGINEER.

1 REV. 4-13-17

L-6

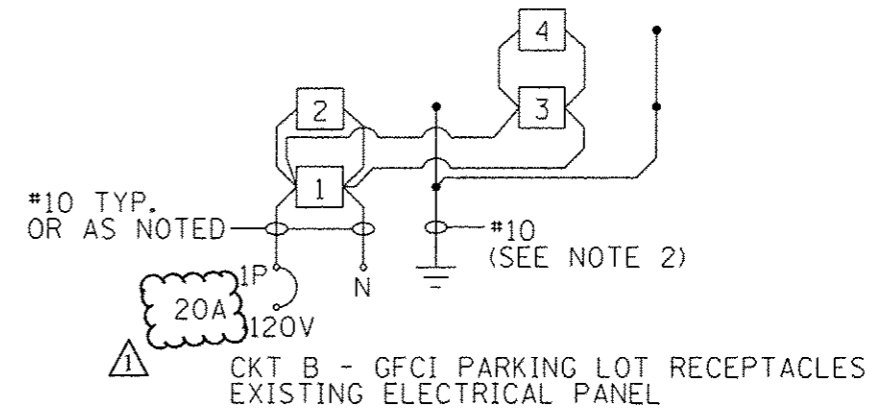
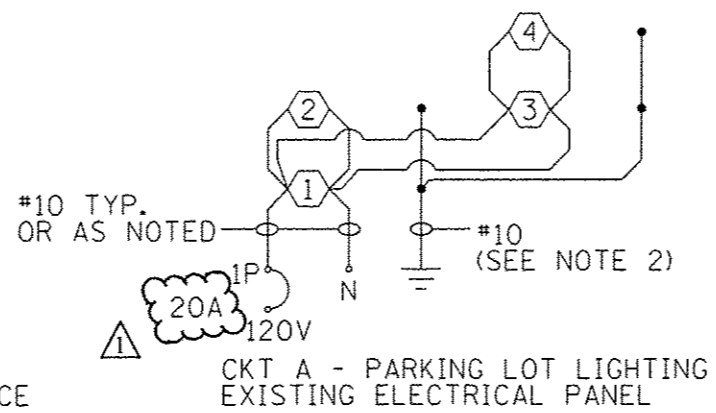
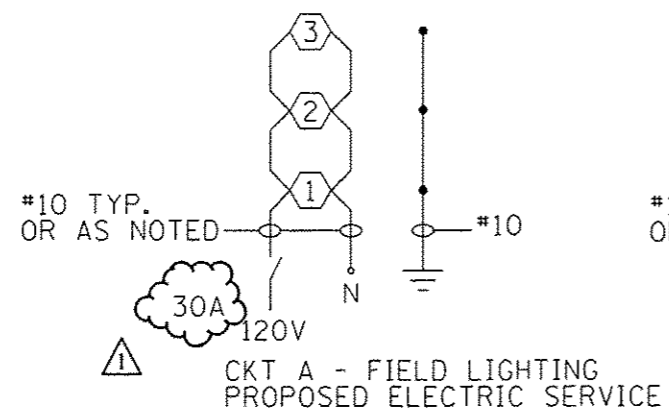
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		DRAWN - B.T.M.	REVISED -
	PLOT SCALE = 10.0000' / 1"	CHECKED - R.H.D.	REVISED -
Default	PLOT DATE = 4/13/2017	DATE - 2/3/17	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING PLAN  
BEALL WOODS STATE CONSERVATION AREA

SCALE: NTS SHEET 63 OF 71 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PARK ROADS 2017-02	WABASH	71	63
			CONTRACT NO. 46418	
ILLINOIS FED. AID PROJECT				



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.
2. #10 EQUIPMENT GROUNDING CONDUCTOR SHARED BETWEEN CIRCUITS A AND B.

△ PROPOSED LUMINAIRE, LED

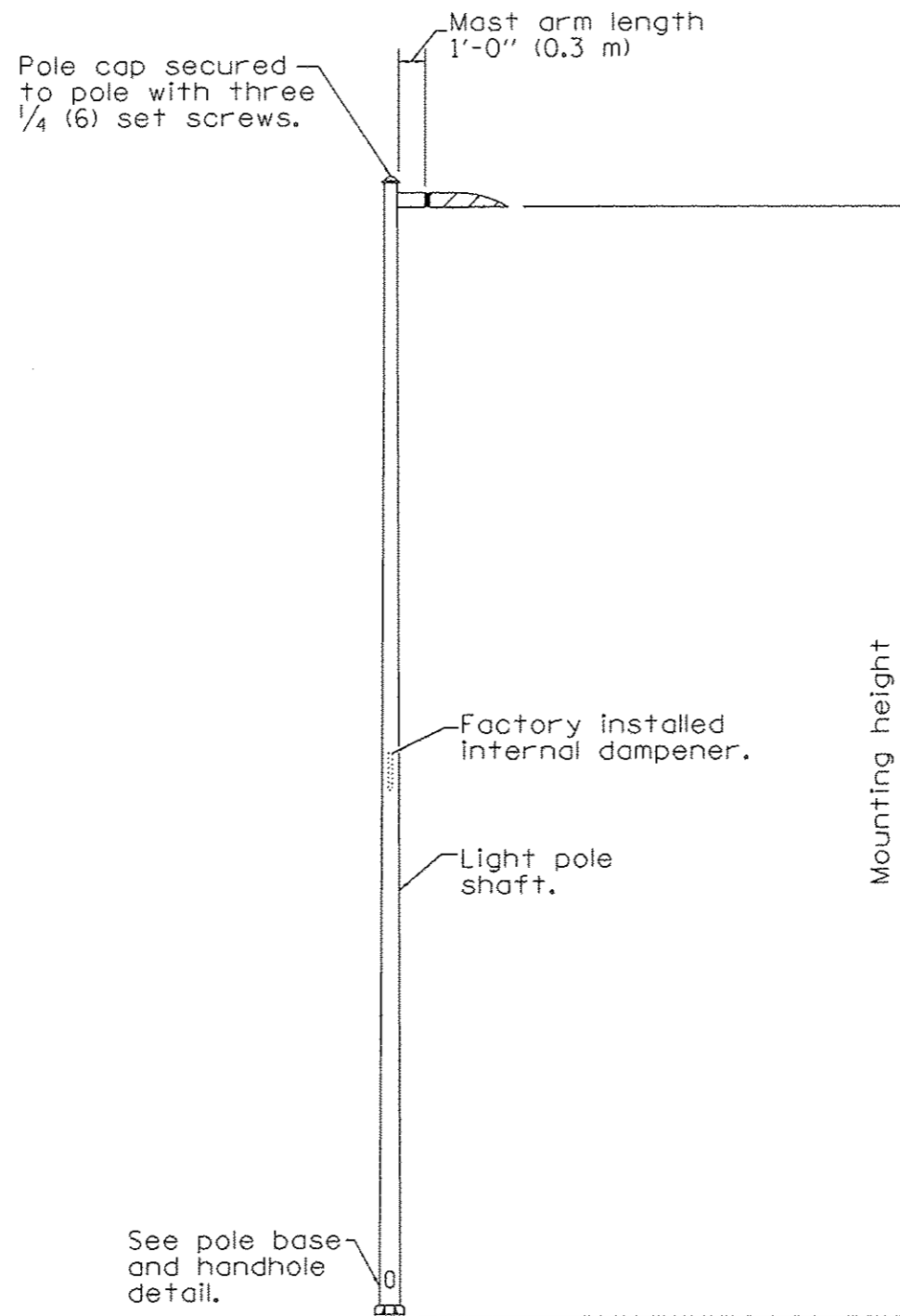
□ PROPOSED GFCI POLE RECEPTACLE

△ REV. 4-13-17

L-7

FILE NAME = sht.64 Electrical.dgn	USER NAME = Connor Bell	DESIGNED - R.H.D.	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>WIRING DIAGRAMS</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 10.0000' / in.	CHECKED - R.H.D.	REVISED -		<b>BEALL WOODS STATE CONSERVATION AREA</b>			PARK ROADS 2017-02	WABASH	71	64
Default	PLOT DATE = 4/13/2017	DATE - 2/3/17	REVISED -		SCALE: NTS	SHEET 64 OF 71 SHEETS	STA.	TO STA.	CONTRACT NO. 46418		
ILLINOIS FED. AID PROJECT											





**LIGHT POLE**

POLE		
MOUNTING HEIGHT	MINIMUM SHAFT DIAMETER	MINIMUM WALL THICKNESS
30' (9.1 m)	8 tapered to 4 1/2 (200 to 114)	0.25 (6)

BASE PLATE	
MOUNTING HEIGHT	BOLT CIRCLE DIAMETER
30' (9.1 m)	11 1/2 (290)

**GENERAL NOTES**

See Standard 836001 for Light Pole Foundation and grounding electrode.

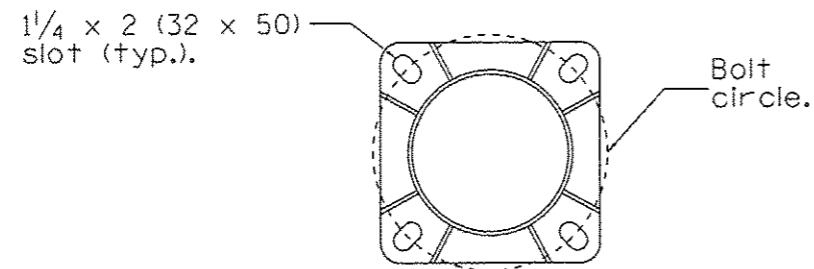
Voids in light pole base shall be sealed to prevent rodent entry.

All dimensions are in inches (millimeters) unless otherwise shown.

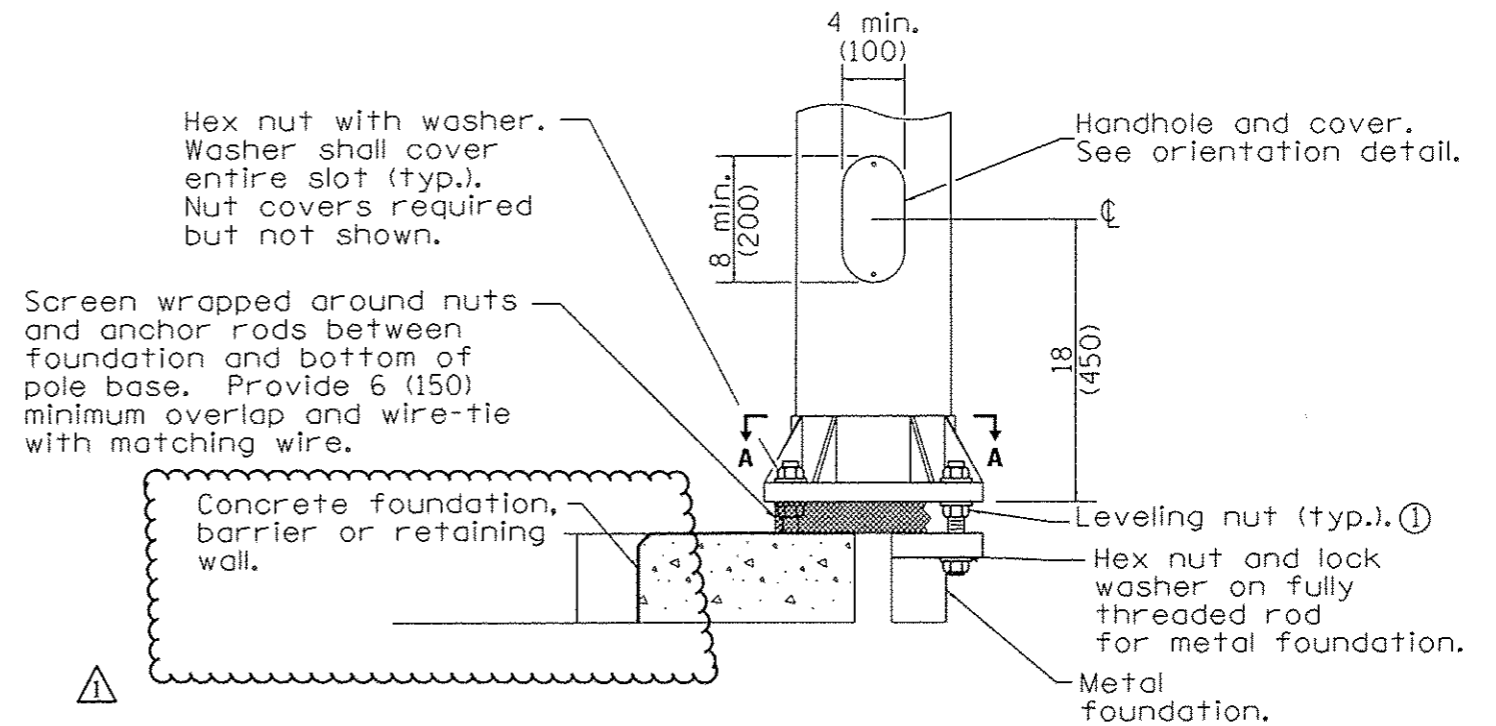
Light poles shall have an anodized aluminum finish. ⚠

⚠ REV. 4-13-17

FILE NAME = sht.65 Electrical.dgn	USER NAME = Connor Bell	DESIGNED - R.H.D.	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LIGHT POLE ALUMINUM DETAIL</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 10.0000 1/1 in.	DRAWN - B.T.M.	REVISED -		<b>BEALL WOODS STATE CONSERVATION AREA</b>			PARK ROADS 2017-02	WABASH	71	65
Default	PLOT DATE = 4/13/2017	CHECKED - R.H.D.	REVISED -		SCALE: NTS	SHEET 65 OF 71 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 46418		
		DATE - 2/3/17	REVISED -								



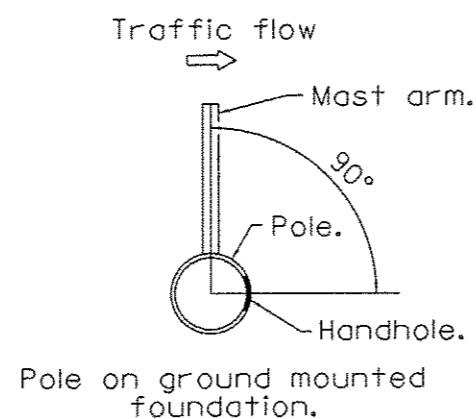
**SECTION A-A**  
(Bolts not shown)



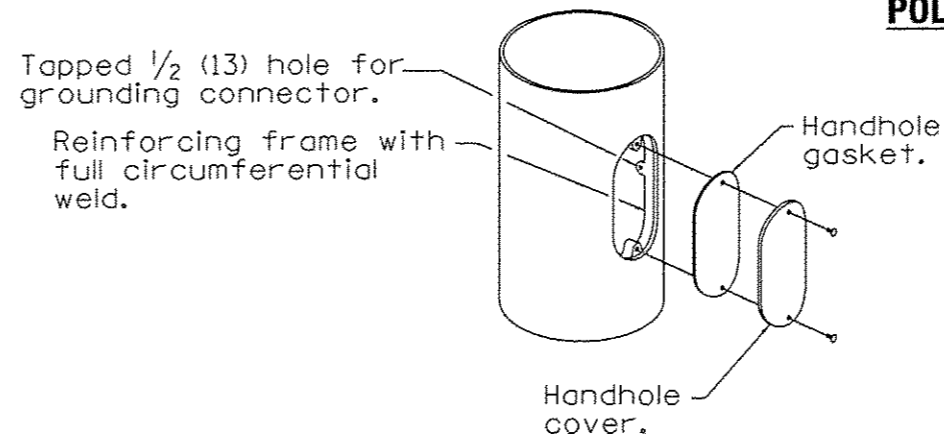
**ELEVATION AT CONCRETE FOUNDATION, METAL FOUNDATION OR RETAINING WALL**

① Omit leveling nuts when breakaway devices are required.

**POLE BASE DETAILS**



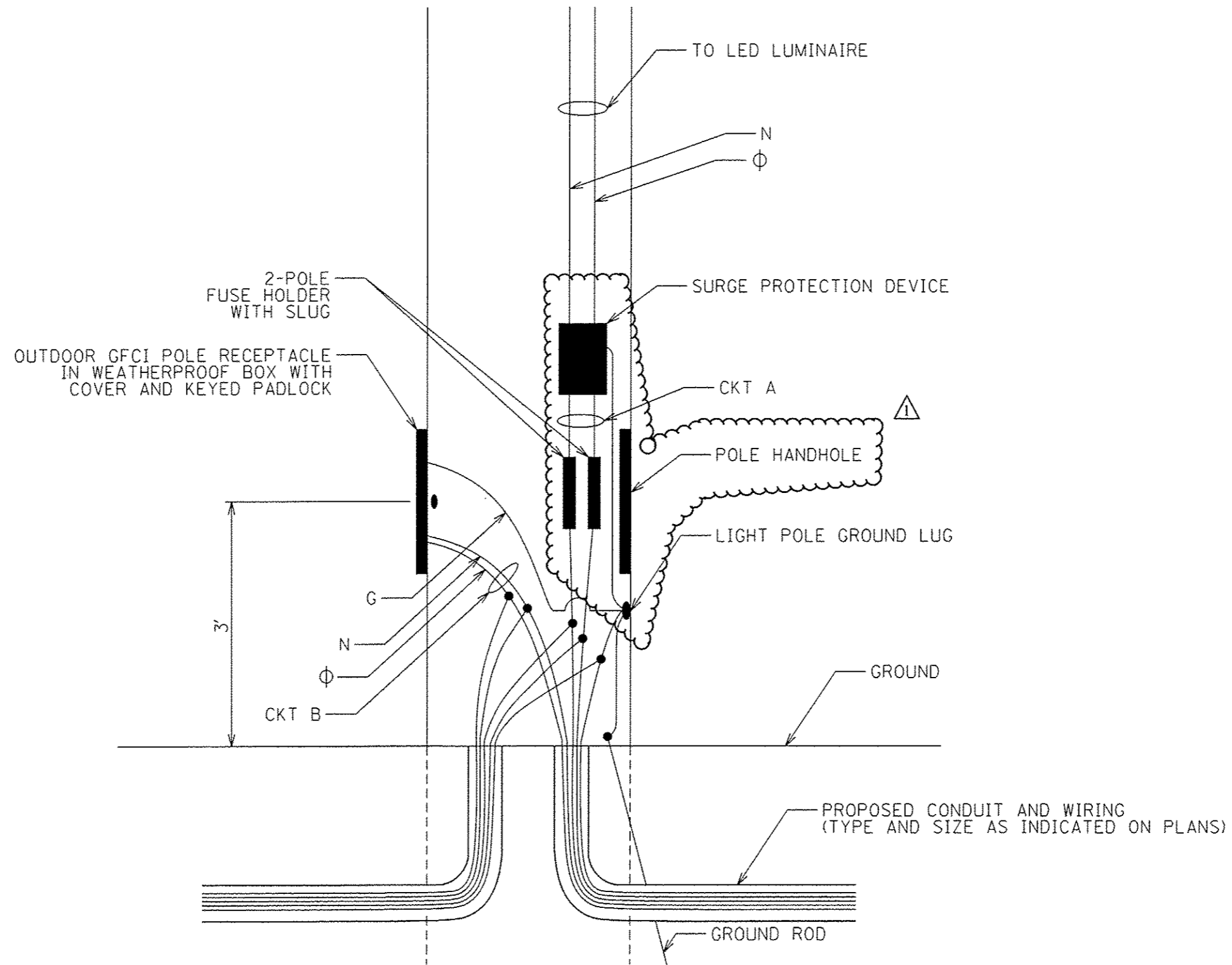
**HANDHOLE ORIENTATION DETAIL**



**HANDHOLE DETAIL**

△ REV. 4-13-17

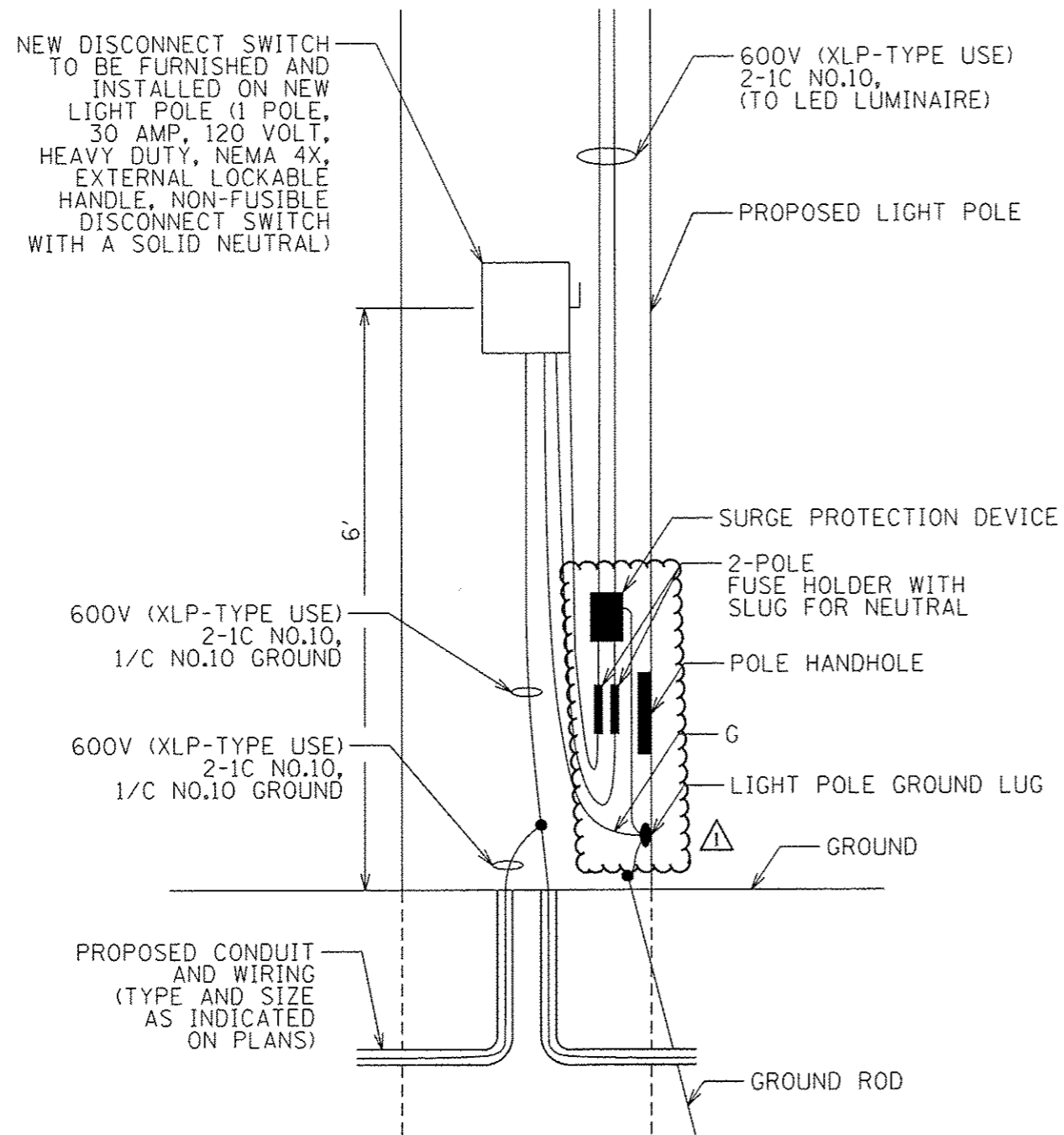
FILE NAME : sht_66 Electrical.dgn	USER NAME : Connor Bell	DESIGNED - R.H.D.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHT POLE ALUMINUM DETAIL		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 10.0000' / in.	DRAWN - B.T.M.	REVISED -		BEALL WOODS STATE CONSERVATION AREA	PARK ROADS 2017-02	WABASH	71	66		
Default	PLOT DATE = 4/13/2017	CHECKED - R.H.D.	REVISED -		SCALE: NTS	SHEET 66 OF 71 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		
		DATE - 2/3/17	REVISED -						CONTRACT NO. 46418		



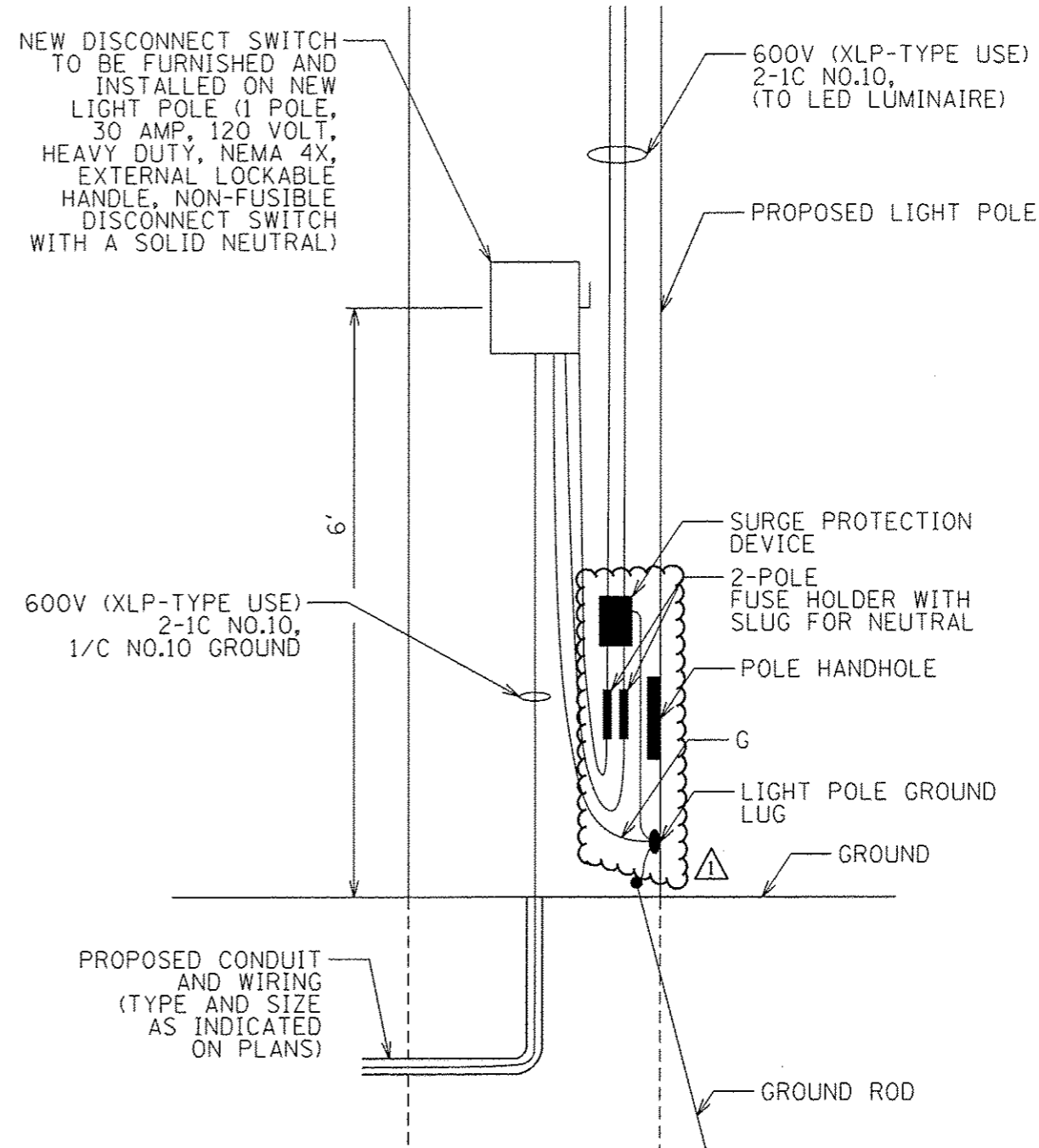
⚠ REV. 4-13-17

L-10

FILE NAME : sht_67_Electrical.dgn	USER NAME : Connor Bell	DESIGNED - R.H.D.	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CONDUIT ROUTING DETAIL BEALL WOODS STATE CONSERVATION AREA</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE : 10,0000' / in.	CHECKED - R.H.D.	REVISED -		SCALE: NTS	SHEET 67 OF 71 SHEETS	STA.	PARK ROADS 2017-02	WABASH	71	67
Default	PLOT DATE : 4/13/2017	DATE - 2/3/17	REVISED -			TO STA.	CONTRACT NO. 46418 ILLINOIS FED. AID PROJECT				



LIGHT POLES #1 AND #2  
(NOT TO SCALE)



LIGHT POLE #3  
(NOT TO SCALE)

⚠ REV. 4-13-17

L-11

FILE NAME = shs_68 Electrical.dgn	USER NAME = Connor Ball	DESIGNED - R.H.D.	REVISED -
		DRAWN - B.T.M.	REVISED -
	PLOT SCALE = 10.0000' / 1" =	CHECKED - R.H.D.	REVISED -
Default	PLOT DATE = 4/13/2017	DATE - 2/3/17	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ELECTRICAL DETAILS  
BEALL WOODS STATE CONSERVATION AREA

SCALE: NTS SHEET 68 OF 71 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PARK ROADS 2017-02	WABASH	71	68
			CONTRACT NO. 46418	
ILLINOIS FED. AID PROJECT				