

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
**WASHINGTON STREET  
LIGHTING, PHASE 2  
BUNKER HILL, MACOUPIN COUNTY, ILLINOIS**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10-00003-01-LT	MACOUPIN	6	1
CITY OF BUNKER HILL		CONTRACT 93580	

**INDEX OF SHEETS**

- COVER SHEET & SUMMARY OF QUANTITIES
- DEMOLITION PLAN (ED-101)
- LIGHTING LAYOUT PLAN (E-101)
- ONE LINE DIAGRAMS (E-501)
- ELECTRICAL DETAILS (E-601)
- POLE & BASE DETAILS (E-602)

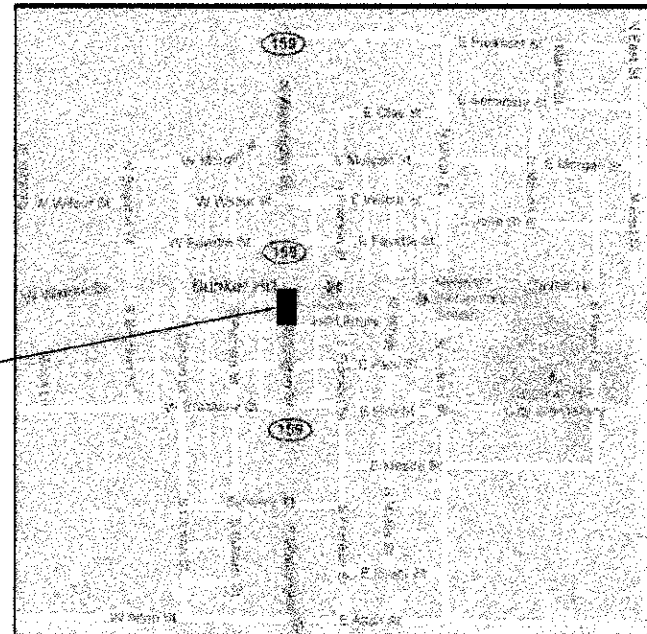
**HIGHWAY STANDARDS**

- 701501-06
- 701701-08
- 701801-05
- 701901-02
- 814001-02

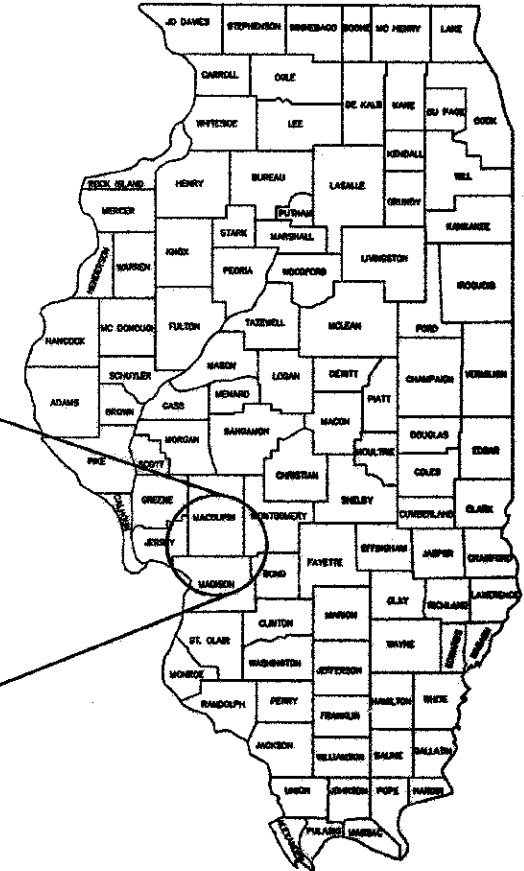
SURFACE TRANSPORTATION/ENHANCEMENT PROGRAM

SECTION 10-00003-01-LT  
PROJECT NO. TE-00D6(096)  
JOB NO. C-96-291-10

PROJECT CONSISTS OF NEW UNDERGROUND ELECTRICAL CIRCUITS POWERED FROM EXISTING ELECTRICAL SERVICE EQUIPMENT. EXISTING LIGHTING CONTROLLER WILL BE EXPANDED BY ADDING A NEW 12 POLE CONTACTOR AND ASSOCIATED CONTROL CIRCUITRY.



AREA LOCATION MAP



PROJECT LOCATION

**SUMMARY OF QUANTITIES**

Item Number	Pay Item Description	Unit	Qty	CONSTRUCTION TYPE CODE 0031
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	102	
44000800	SIDEWALK REMOVAL	SQ FT	102	
81023550	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	188	
81023750	UNDERGROUND CONDUIT, COLABLE NON METALLIC CONDUIT, 2"	FOOT	582	
81400730	HANDHOLE, COMPOSITE CONCRETE	EACH	2	
81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-Type USE) 1/C No. 8	FOOT	7,160	
81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-Type USE) 1/C No. 6	FOOT	4,321	
84200804	REMOVAL OF POLE FOUNDATION	EACH	6	
X0328854	ORNAMENTAL LIGHT UNIT, COMPLETE	EACH	10	
X2500820	SEEDING, CLASS 1A (SPECIAL)	ACRE	0.25	
X7016218	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	
X8380120	LIGHT POLE FOUNDATION - SPECIAL	EACH	3	
X8980130	MODIFY EXISTING LIGHTING CONTROLLER	EACH	1	
X0008229	DECORATIVE LIGHT POLE BASE	EACH	7	
X0004002	BOLLARDS	EACH	2	
X0083800	SAWING P.C. CONCRETE SIDEWALK	FOOT	110	
17700100	MOBILIZATION	L SUM	1	

\* INDICATES SPECIAL PROVISION  
12 INDICATES ITEMS ELIGIBLE FOR 80% ITEP FUNDING. (ALL OTHERS = 50/50)

**UTILITY OWNERS**

**CITY OF BUNKER HILL**  
CHRIS SCHLOBOHM  
618-585-4632

**FRONTIER COMMUNICATIONS**  
MARK BURKS  
217-854-2222

**AMEREN IP**  
MARTIN FULLER  
618-236-6281

**MADISON TELEPHONE CO.**  
STEPHEN SCHWARTZ  
618-635-5000

STA. 204+80.00 TO STA. 205+49.85(Bk)  
STA. 0+00.00(AH) TO STA. 2+75.00  
NET LENGTH OF SECTION: 364.85 FEET = 0.069 MILES

**HA HENEGHAN AND ASSOCIATES, P.C.**  
1004 STATE HWY. 16  
JERSEYVILLE, ILLINOIS 62052  
PHONE NO. (618) 498-6418  
FAX NO. (618) 498-6410  
www.haenr.com  
DESIGN FIRM NUMBER 184-002692, EXPIRES APRIL 30, 2013

**HR HURST-ROSCH ENGINEERS, INC.**  
1400 E. TREMONT ST., P.O. BOX 130  
HILLSBORO, ILLINOIS 62049  
(217) 532-3959 FAX (217) 532-3212

APPROVED 4/11 2012  
*Raymond Chapman*  
MAYOR

PASSED April 25 2012  
*James J. ...*  
DISTRICT 6 ENGINEER OF LOCAL ROADS & STREETS

PASSED April 25 2012  
*Ron ...*  
DISTRICT 6 ENGINEER OF CONSTRUCTION

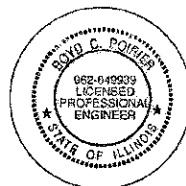
RELEASING FOR BID BASED ON LIMITED REVIEW April 25 2012  
*Ann ...*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION 4 ENGINEER

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS THE EXISTENCE OF WHICH AT PRESENT IS NOT KNOWN. IT WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR TO CONTACT ALL UTILITIES PRIOR TO CONSTRUCTION TO VERIFY THE LOCATIONS OF ANY UNDERGROUND UTILITIES WHICH MAY EXIST.

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

CONTRACT No. 93580



DATE: 3/30/2012  
LICENSE EXPIRES: 11/30/2013

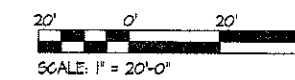
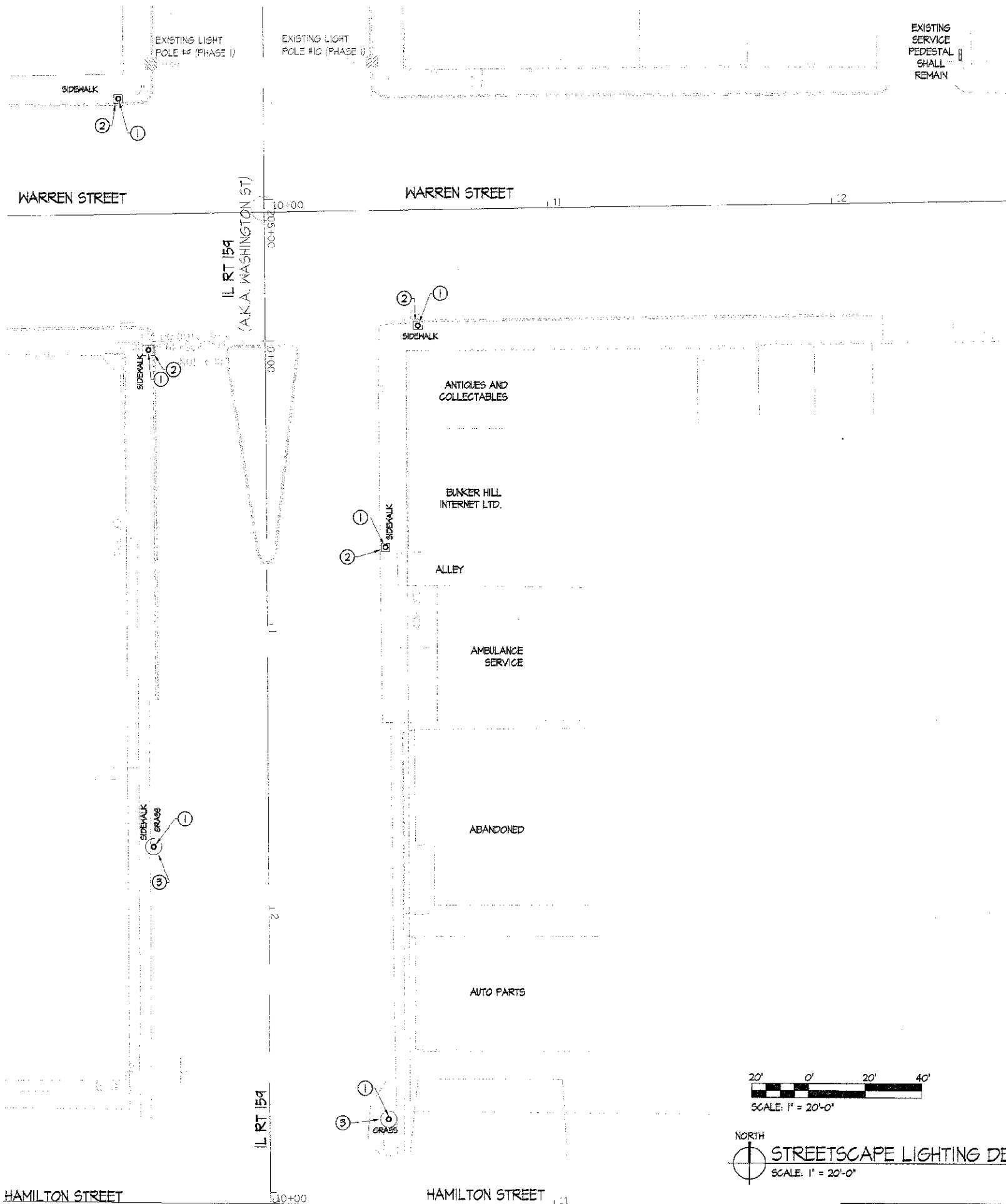
8437 STEELCREST LANE  
TROY, ILLINOIS 62204  
(618) 687-0000 FAX (618) 687-0001

**GENERAL NOTES:**

1. PERFORM ALL WORK IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRIC CODE, 2008 EDITION.
2. CONTRACTOR SHALL PERFORM WORK AND PROVIDE MATERIALS IN ACCORDANCE WITH CURRENT ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) STANDARDS.

**KEYED NOTES: (X)**

1. EXISTING POLE AND FOUNDATION SHALL BE REMOVED. AMEREN SHALL REMOVE AND LEGALLY DISPOSE OF POLES. CONTRACTOR SHALL REMOVE ENTIRE FOUNDATION AND BACKFILL, COMPACTING IN 6" LIFTS. BACKFILL WITH MATERIAL SAVED FROM EXCAVATION OF NEW LIGHT POLE FOUNDATIONS AND HAND HOLES AS SHOWN ON SHEET E-101.
2. CONTRACTOR SHALL RESTORE SURFACE TO MATCH THAT OF ADJACENT CONCRETE SIDEWALK.
3. CONTRACTOR SHALL LEVEL AND RESEED (CLASS 1A) AREA DISTURBED BY POLE FOUNDATION REMOVAL IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS SECTION 250.



NORTH  
**STREETSCAPE LIGHTING DEMOLITION**  
 SCALE: 1" = 20'-0"

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10-00003-01-LT	MACOUPIN	6	2
CITY OF BUNKER HILL		CONTRACT 93580	

**HA**  
 HENECHAN  
 AND ASSOCIATES, P.C.  
 ENGINEERS & SURVEYORS  
 1004 STATE HIGHWAY 18,  
 JERSEYVILLE, IL  
 PH: 618-495-5418  
 DESIGN FIRM NO. 784-052892  
 EXPIRES APRIL 30, 2013

CONSULTANTS  
**HR**  
 HURST-ROSCHÉ  
 ENGINEERS INC.  
 PROFESSIONAL DESIGN NUMBER: 164-00058  
 1400 E. TREMONT  
 HILLSBORO, IL  
 PH: 217.532.3959  
 F: 217.532.3212

**Energy Plus**  
 ASSOCIATES  
 Project Manager: Bob J. Young, P.E.  
 8437 STEELECREST LANE  
 TROY, IL  
 PH: 618.867.0000  
 F: 618.667.0001

**ROYD G. PORIER**  
 062-048939  
 LICENSED  
 PROFESSIONAL  
 ENGINEER  
 STATE OF ILLINOIS  
 SIGNATURE: *[Signature]*  
 DATE: 3/30/2012  
 LICENSE EXPIRES: 11/30/2013

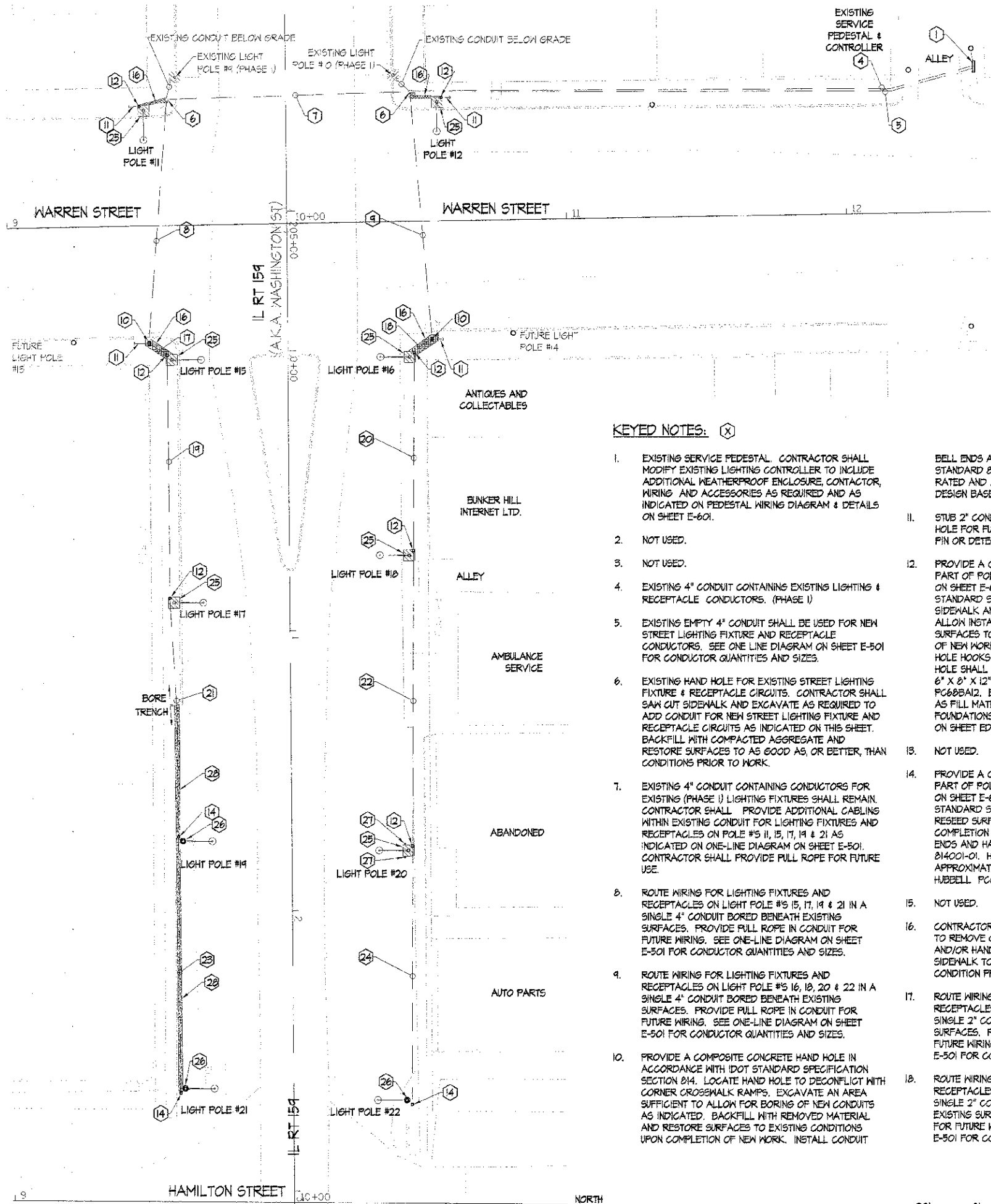
BUNKER HILL STREET LIGHTING REPLACEMENT  
 BUNKER HILL, MACOUPIN COUNTY, ILLINOIS

MARK	DATE	DESCRIPTION

DATE: 03/20/12  
 PROJECT NO: 153-4191  
 DESIGN: BG DRAWN: BG CHECK: BCP

STREETSCAPE  
 LIGHTING  
 DEMOLITION

**ED-101**



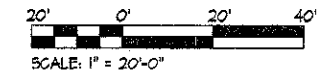
**GENERAL NOTES:**

- PERFORM ALL WORK IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRIC CODE, 2008 EDITION.
- CONTRACTOR SHALL PERFORM WORK AND PROVIDE MATERIALS IN ACCORDANCE WITH CURRENT ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) STANDARDS.
- COORDINATE EXACT LOCATION OF NEW LIGHT POLES WITH EXISTING CONDITIONS, STRUCTURES AND DEVICES. LOCATIONS OF NEW LIGHT POLES SHALL BE COORDINATED WITH THE CITY ENGINEER PRIOR TO INSTALLATION.
- EXISTING STREET LIGHTING SHALL REMAIN DURING INSTALLATION OF NEW LIGHT POLES. COORDINATE WITH THE LOCAL UTILITY (AMEREN IP) FOR THE REMOVAL OF EXISTING STREET LIGHTS UPON COMPLETION OF WORK. EXISTING STREETLIGHTS ARE OWNED BY AMEREN IP AND SHALL BE REMOVED BY AMEREN IP.
- CONTRACTOR SHALL NOT SPLICE ANY CONDUCTORS IN ANY BELOW GRADE HANDHOLES.
- #10 AWG TAP CONDUCTORS MAY BE USED FOR POLE MOUNTED LIGHTING FIXTURES AND RECEPTACLES.
- EACH LIGHTING FIXTURE SHALL BE PROTECTED BY A 15A IN-LINE FUSE WITHIN THE BASE POLE BASE.

**KEYED NOTES:** (X)

- EXISTING SERVICE PEDESTAL. CONTRACTOR SHALL MODIFY EXISTING LIGHTING CONTROLLER TO INCLUDE ADDITIONAL WEATHERPROOF ENCLOSURE, CONTRACTOR WIRING AND ACCESSORIES AS REQUIRED AND AS INDICATED ON PEDESTAL WIRING DIAGRAM & DETAILS ON SHEET E-601.
- NOT USED.
- NOT USED.
- EXISTING 4" CONDUIT CONTAINING EXISTING LIGHTING & RECEPTACLE CONDUCTORS. (PHASE I)
- EXISTING EMPTY 4" CONDUIT SHALL BE USED FOR NEW STREET LIGHTING FIXTURE AND RECEPTACLE CONDUCTORS. SEE ONE LINE DIAGRAM ON SHEET E-501 FOR CONDUCTOR QUANTITIES AND SIZES.
- EXISTING HAND HOLE FOR EXISTING STREET LIGHTING FIXTURE & RECEPTACLE CIRCUITS. CONTRACTOR SHALL SAW CUT SIDEWALK AND EXCAVATE AS REQUIRED TO ADD CONDUIT FOR NEW STREET LIGHTING FIXTURE AND RECEPTACLE CIRCUITS AS INDICATED ON THIS SHEET. BACKFILL WITH COMPACTED AGGREGATE AND RESTORE SURFACES TO AS GOOD AS, OR BETTER, THAN CONDITIONS PRIOR TO WORK.
- EXISTING 4" CONDUIT CONTAINING CONDUCTORS FOR EXISTING (PHASE I) LIGHTING FIXTURES SHALL REMAIN. CONTRACTOR SHALL PROVIDE ADDITIONAL CABLING WITHIN EXISTING CONDUIT FOR LIGHTING FIXTURES AND RECEPTACLES ON POLE #5, 11, 15, 17, 19 & 21 AS INDICATED ON ONE-LINE DIAGRAM ON SHEET E-501. CONTRACTOR SHALL PROVIDE PULL ROPE FOR FUTURE USE.
- ROUTE WIRING FOR LIGHTING FIXTURES AND RECEPTACLES ON LIGHT POLE #5, 15, 17, 19 & 21 IN A SINGLE 4" CONDUIT BORED BENEATH EXISTING SURFACES. PROVIDE PULL ROPE IN CONDUIT FOR FUTURE WIRING. SEE ONE-LINE DIAGRAM ON SHEET E-501 FOR CONDUCTOR QUANTITIES AND SIZES.
- ROUTE WIRING FOR LIGHTING FIXTURES AND RECEPTACLES ON LIGHT POLE #5, 16, 18, 20 & 22 IN A SINGLE 4" CONDUIT BORED BENEATH EXISTING SURFACES. PROVIDE PULL ROPE IN CONDUIT FOR FUTURE WIRING. SEE ONE-LINE DIAGRAM ON SHEET E-501 FOR CONDUCTOR QUANTITIES AND SIZES.
- PROVIDE A COMPOSITE CONCRETE HAND HOLE IN ACCORDANCE WITH IDOT STANDARD SPECIFICATION SECTION 814. LOCATE HAND HOLE TO DECONFLICT WITH CORNER CROSSWALK RAMPS. EXCAVATE AN AREA SUFFICIENT TO ALLOW FOR BORING OF NEW CONDUITS AS INDICATED. BACKFILL WITH REMOVED MATERIAL AND RESTORE SURFACES TO EXISTING CONDITIONS UPON COMPLETION OF NEW WORK. INSTALL CONDUIT BELL ENDS AND HAND HOLE HOOKS PER IDOT STANDARD 814001-01. HAND HOLE SHALL BE TIER 15 RATED AND APPROXIMATELY 11" X 17" X 18" DEEP. DESIGN BASE: HUBBELL PC68BA18.
- STUB 2" CONDUIT APPROXIMATELY 24" OUT FROM HAND HOLE FOR FUTURE USE. CAP AND MARK END WITH IRON PIN OR DETECTABLE TAG.
- PROVIDE A COMPOSITE CONCRETE HAND HOLE AS PART OF POLE BASE AS INDICATED IN DETAILS 2 & 3 ON SHEET E-602 AND IN ACCORDANCE WITH IDOT STANDARD SPECIFICATION SECTION 814. SAW CUT SIDEWALK AND EXCAVATE AN AREA SUFFICIENT TO ALLOW INSTALLATION AS INDICATED. RESTORE SURFACES TO EXISTING CONDITIONS UPON COMPLETION OF NEW WORK. INSTALL CONDUIT BELL ENDS AND HAND HOLE HOOKS PER IDOT STANDARD 814001-01. HAND HOLE SHALL BE TIER 15 RATED AND APPROXIMATELY 6" X 8" X 12" DEEP. DESIGN BASE: HUBBELL PC68BA12. EXCAVATED MATERIAL SHALL BE SAVED AS FILL MATERIAL FOR DEMOLITION OF EXISTING POLE FOUNDATIONS AS INDICATED BY KEYED NOTE NUMBER 1 ON SHEET ED-101.
- NOT USED.
- PROVIDE A COMPOSITE CONCRETE HAND HOLE AS PART OF POLE BASE AS INDICATED IN DETAILS 4 & 5 ON SHEET E-602 AND IN ACCORDANCE WITH IDOT STANDARD SPECIFICATION SECTION 814. RESTORE AND RESEED SURFACES TO EXISTING CONDITIONS UPON COMPLETION OF NEW WORK. INSTALL CONDUIT BELL ENDS AND HAND HOLE HOOKS PER IDOT STANDARD 814001-01. HAND HOLE SHALL BE TIER 15 RATED AND APPROXIMATELY 6" X 8" X 12" DEEP. DESIGN BASE: HUBBELL PC68BA12.
- NOT USED.
- CONTRACTOR SHALL SAW CUT SIDEWALK AS REQUIRED TO REMOVE CONCRETE FOR INSTALLATION OF CONDUIT AND/OR HAND HOLE. CONTRACTOR SHALL RESTORE SIDEWALK TO CONDITION EQUAL TO, OR BETTER THAN CONDITION PRIOR TO WORK.
- ROUTE WIRING FOR LIGHTING FIXTURES AND RECEPTACLES ON LIGHT POLE #5, 15, 17, 19 & 21 IN A SINGLE 2" CONDUIT TRENCHED BENEATH EXISTING SURFACES. PROVIDE PULL ROPE IN CONDUIT FOR FUTURE WIRING. SEE ONE-LINE DIAGRAM ON SHEET E-501 FOR CONDUCTOR QUANTITIES AND SIZES.
- ROUTE WIRING FOR LIGHTING FIXTURES AND RECEPTACLES ON LIGHT POLE #5, 16, 18, 20 & 22 IN A SINGLE 2" CONDUIT TRENCHED BENEATH EXISTING SURFACES. PROVIDE PULL ROPE IN CONDUIT FOR FUTURE WIRING. SEE ONE-LINE DIAGRAM ON SHEET E-501 FOR CONDUCTOR QUANTITIES AND SIZES.
- ROUTE WIRING FOR LIGHTING FIXTURES AND RECEPTACLES ON LIGHT POLE #5, 17, 19 & 21 IN A SINGLE 2" CONDUIT IN A SINGLE 2" CONDUIT DIRECTIONALLY BORED BENEATH EXISTING SURFACES. PROVIDE PULL ROPE IN CONDUIT FOR FUTURE WIRING. SEE ONE-LINE DIAGRAM ON SHEET E-501 FOR CONDUCTOR QUANTITIES AND SIZES.
- ROUTE WIRING FOR LIGHTING FIXTURES AND RECEPTACLES ON LIGHT POLE #5, 20 & 22 IN A SINGLE 2" CONDUIT DIRECTIONALLY BORED BENEATH EXISTING SURFACES. PROVIDE PULL ROPE IN CONDUIT FOR FUTURE WIRING. SEE ONE-LINE DIAGRAM ON SHEET E-501 FOR CONDUCTOR QUANTITIES AND SIZES.
- ROUTE WIRING FOR LIGHTING FIXTURES AND RECEPTACLES ON LIGHT POLE #5, 19 & 21 IN A SINGLE 2" CONDUIT. CONDUIT SHALL BE DIRECTIONALLY BORED BENEATH EXISTING IMPROVED SURFACES AND TRENCHED WHERE SURFACES ARE UNIMPROVED AS INDICATED. PROVIDE PULL ROPE IN CONDUIT FOR FUTURE WIRING. SEE ONE-LINE DIAGRAM ON SHEET E-501 FOR CONDUCTOR QUANTITIES AND SIZES.
- ROUTE WIRING FOR LIGHTING FIXTURES AND RECEPTACLES ON LIGHT POLE #5, 20 & 22 IN A SINGLE 2" CONDUIT DIRECTIONALLY BORED BENEATH EXISTING SURFACES. PROVIDE PULL ROPE IN CONDUIT FOR FUTURE WIRING. SEE ONE-LINE DIAGRAM ON SHEET E-501 FOR CONDUCTOR QUANTITIES AND SIZES.
- ROUTE WIRING FOR LIGHTING FIXTURES AND RECEPTACLES ON LIGHT POLE #21 IN A SINGLE 2" CONDUIT TRENCHED BENEATH EXISTING SURFACES. PROVIDE PULL ROPE IN CONDUIT FOR FUTURE WIRING. SEE ONE-LINE DIAGRAM ON SHEET E-501 FOR CONDUCTOR QUANTITIES AND SIZES.
- ROUTE WIRING FOR LIGHTING FIXTURES AND RECEPTACLES ON LIGHT POLE #22 IN A SINGLE 2" CONDUIT DIRECTIONALLY BORED BENEATH EXISTING SURFACES. PROVIDE PULL ROPE IN CONDUIT FOR FUTURE WIRING. SEE ONE-LINE DIAGRAM ON SHEET E-501 FOR CONDUCTOR QUANTITIES AND SIZES.
- PROVIDE LIGHT POLE, SPECIAL - DECORATIVE ORNAMENTAL AND LIGHT POLE FOUNDATION WITH HAND HOLE PER THE LIGHT POLE DETAIL NUMBERS 2 & 3 ON SHEET E-602.
- PROVIDE LIGHT POLE, SPECIAL - DECORATIVE ORNAMENTAL AND LIGHT POLE FOUNDATION, SPECIAL WITH HAND HOLE PER THE LIGHT POLE DETAIL NUMBERS 4 & 5 ON SHEET E-602.
- CONTRACTOR SHALL PROVIDE BOLLARD LOCATED APPROXIMATELY AS INDICATED. SEE DETAIL 7 ON SHEET E-602 FOR BOLLARD CONSTRUCTION.
- CONTRACTOR SHALL LEVEL AND RESEED (CLASS 1A) AREA DISTURBED BY TRENCHING IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS SECTION 250.

**PROPOSED LIGHTING LAYOUT**  
SCALE: 1" = 20'-0"



SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10-00003-01-LT	MACOUPIN	6	3
CITY OF BUNKER HILL		CONTRACT 93580	

**HA**  
HENEGHAN  
AND ASSOCIATES, P.C.  
ENGINEERS - SURVEYORS  
1004 STATE HIGHWAY 16,  
JERSEYVILLE, IL  
PH 618 468-8418  
DESIGN FIRM NO. 184-002692  
EXPIRES APRIL 30, 2013

**HR**  
HURST-ROSCHÉ  
ENGINEERS, INC.  
PROFESSIONAL DESIGN NUMBER: 164-00008  
1400 E. TREMONT  
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F: 217.532.3212

**Energy Plan Associates**  
8437 STEELECREST LANE  
TROY, IL  
PH: 618.667.0000  
F: 618.667.0007

**BOYD C. POINTEUR**  
062-042933  
LICENSED PROFESSIONAL ENGINEER  
STATE OF ILLINOIS  
SIGNATURE: *[Signature]*  
DATE: 3/30/2012  
LICENSE EXPIRES: 11/30/2013

BUNKER HILL STREET LIGHTING REPLACEMENT  
BUNKER HILL, MACOUPIN COUNTY, ILLINOIS

MARK	DATE	DESCRIPTION

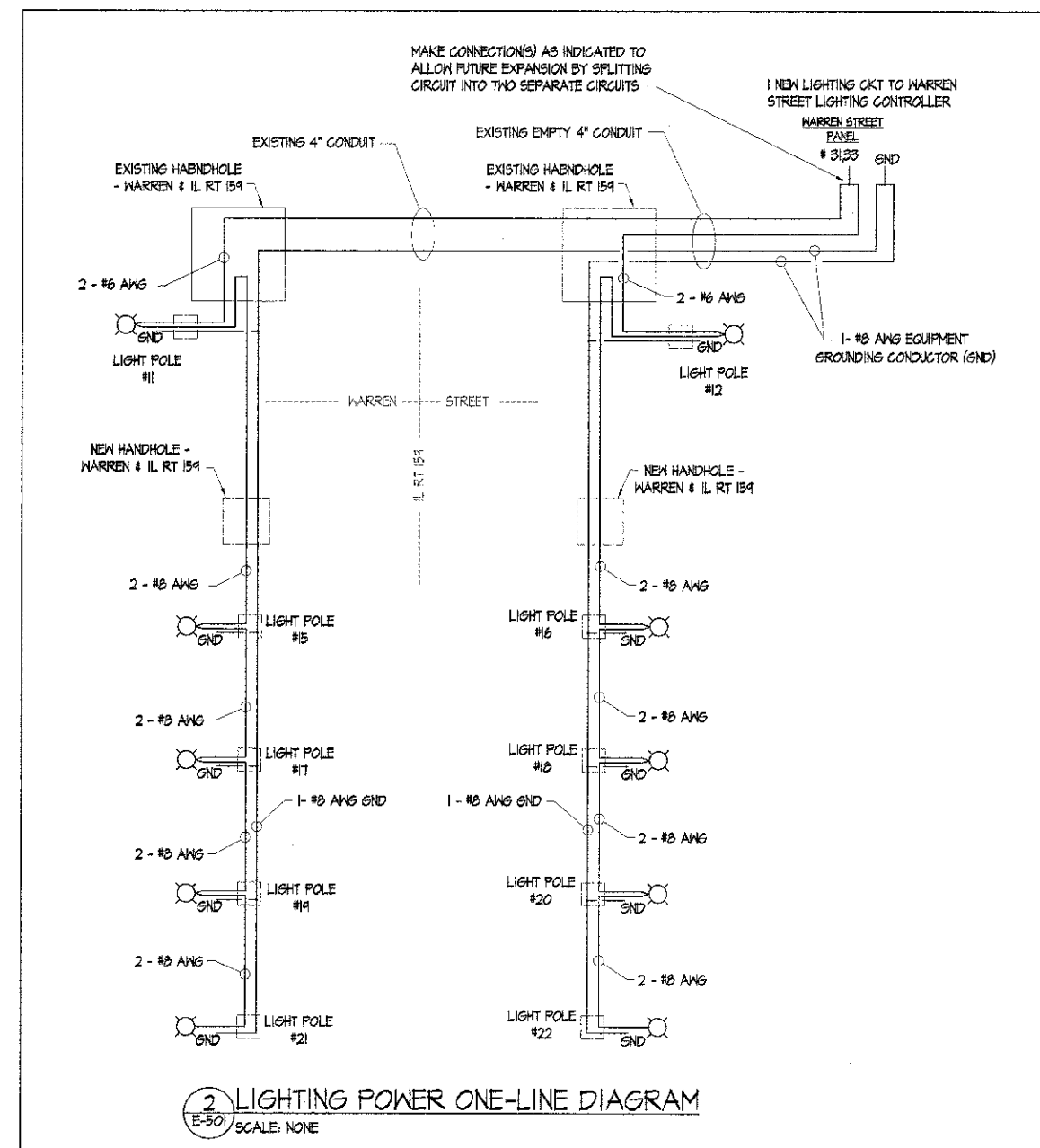
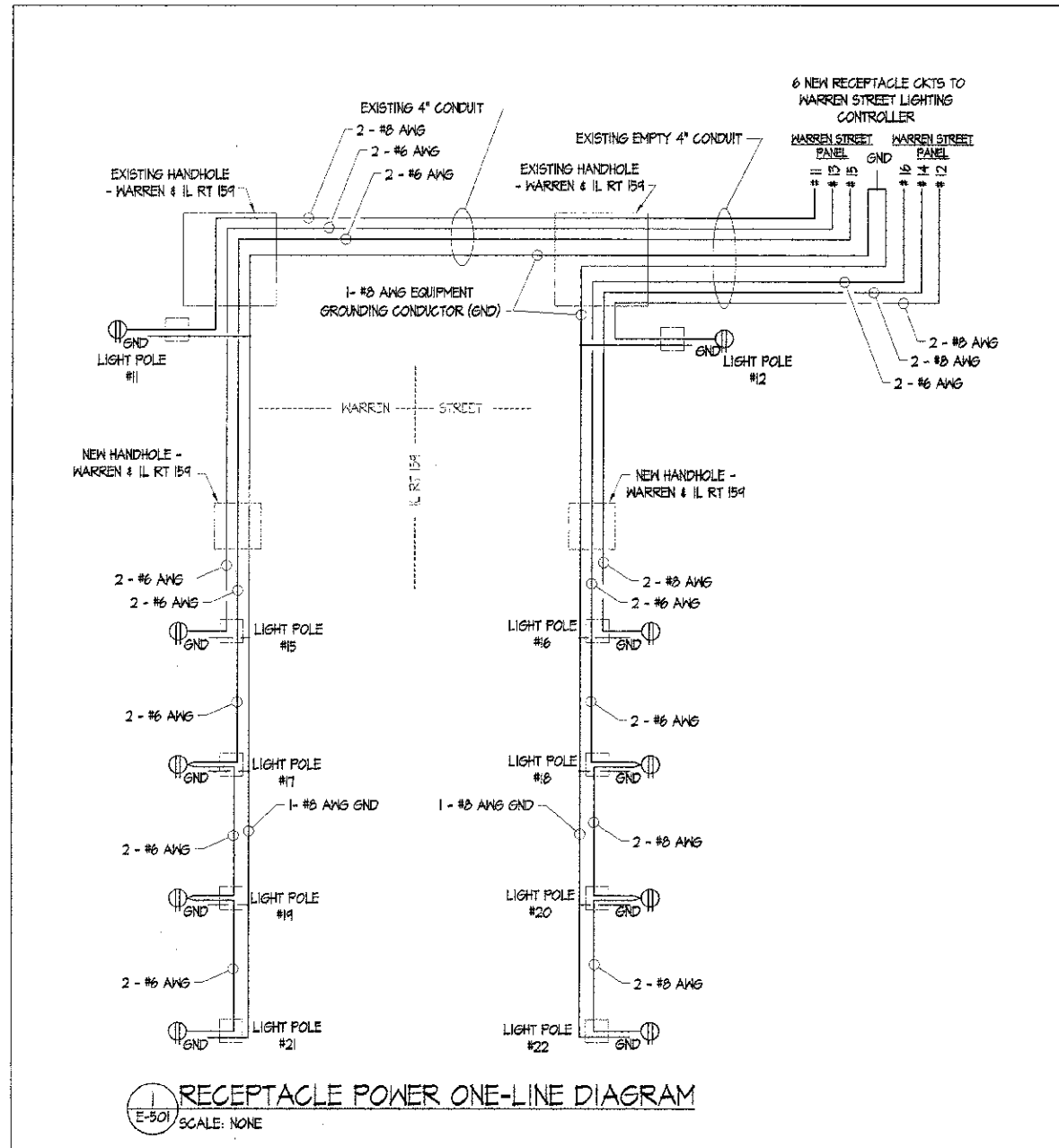
DATE: 03/2012  
PROJECT NO: 153-4191  
DESIGN: BG DRAWN: BG CHECK: BCP

PROPOSED LIGHTING LAYOUT

**E-101**

GENERAL NOTES:

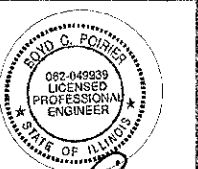
- PERFORM ALL WORK IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE, 2008 EDITION.
- CONTRACTOR SHALL PERFORM WORK AND PROVIDE MATERIALS IN ACCORDANCE WITH CURRENT ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) STANDARDS.
- EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING INSTALLATION OF NEW LIGHT POLES. COORDINATE WITH THE LOCAL UTILITY (AMEREN IP) FOR THE REMOVAL OF EXISTING STREET LIGHTS UPON COMPLETION OF WORK. EXISTING STREETLIGHTS ARE OWNED BY AMEREN IP AND SHALL BE REMOVED BY AMEREN IP.
- CONTRACTOR SHALL NOT SPLICE ANY CONDUCTORS IN ANY BELOW GRADE HAND HOLES.
- CONDUCTORS SHALL BE COPPER, RATED 600V, WET LOCATION LISTED, RATED 90 DEGREES CENTIGRADE WITH XLP INSULATION.
- #10 AWG TAP CONDUCTORS WITHIN POLE MAY BE USED FOR LIGHTING FIXTURES AND RECEPTACLES.
- EACH LIGHTING FIXTURE SHALL BE PROTECTED BY A 15A IN-LINE FUSE WITHIN THE POLE BASE.



**HA**  
HENEGHAN  
AND ASSOCIATES, P.C.  
ENGINEERS & SURVEYORS  
1004 STATE HIGHWAY 15  
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EXPIRES APRIL 30, 2013

CONSULTANTS  
**HR**  
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ENGINEERS, INC.  
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**Energy Plus**  
ASSOCIATES  
8437 STEELECREST LANE  
TROY, IL  
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F: 618.667.0001



SIGNATURE: *D. Poirier*  
DATE: 3/21/2012  
LICENSE EXPIRES: 11/30/2013

BUNKER HILL STREET LIGHTING REPLACEMENT  
BUNKER HILL, MACOUPIN COUNTY, ILLINOIS

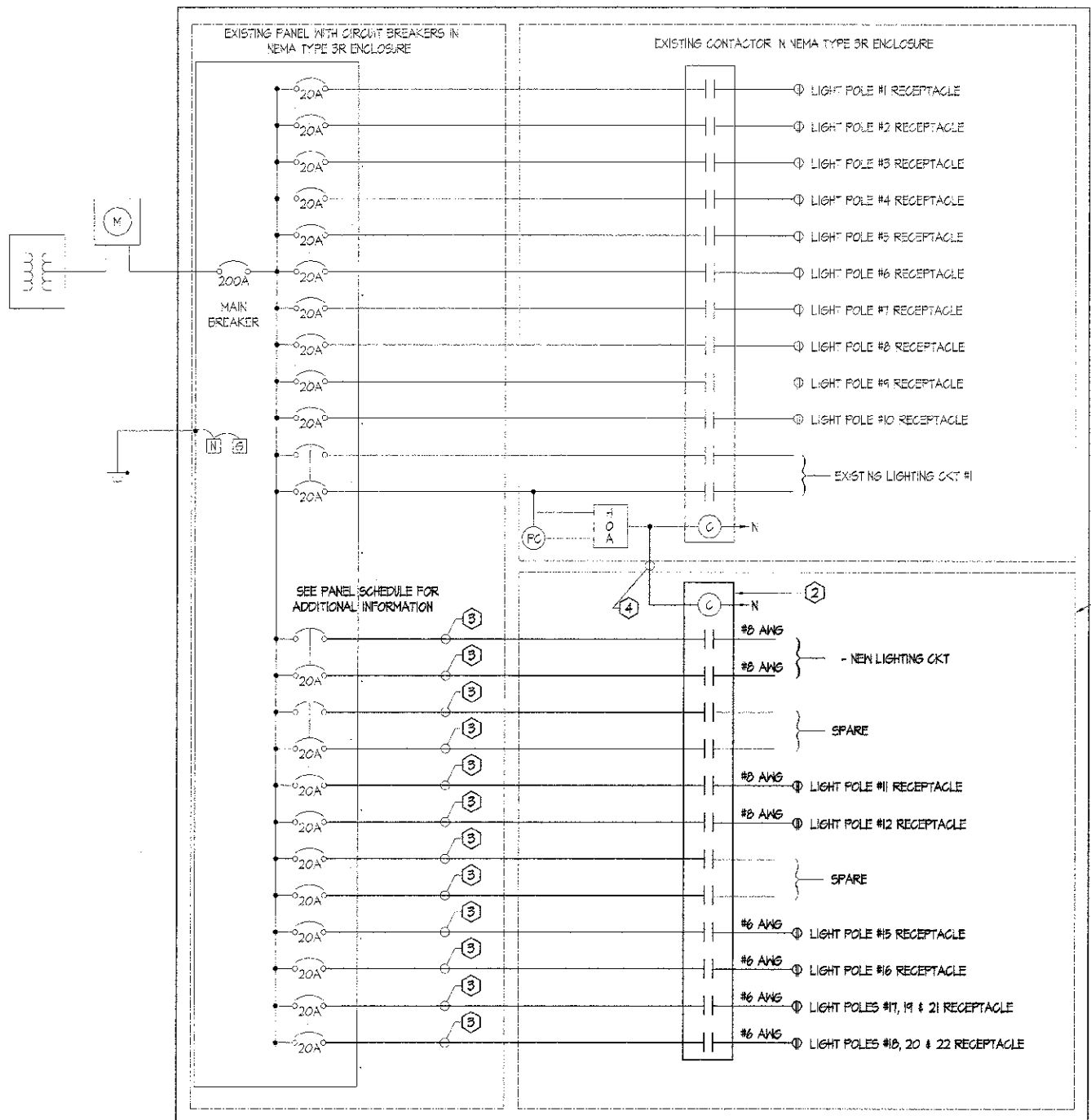
MARK	DATE	DESCRIPTION

DATE: 03/2012  
PROJECT NO: 153-4191  
DESIGN: BG    DRAWN: BG    CHECK: BCP

ELECTRICAL  
ONE-LINE DIAGRAMS -  
RECEPTACLE &  
LIGHTING CIRCUITS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10-00003-01-LT	MACOUPIN	6	4
CITY OF BUNKER HILL	CONTRACT 93580		

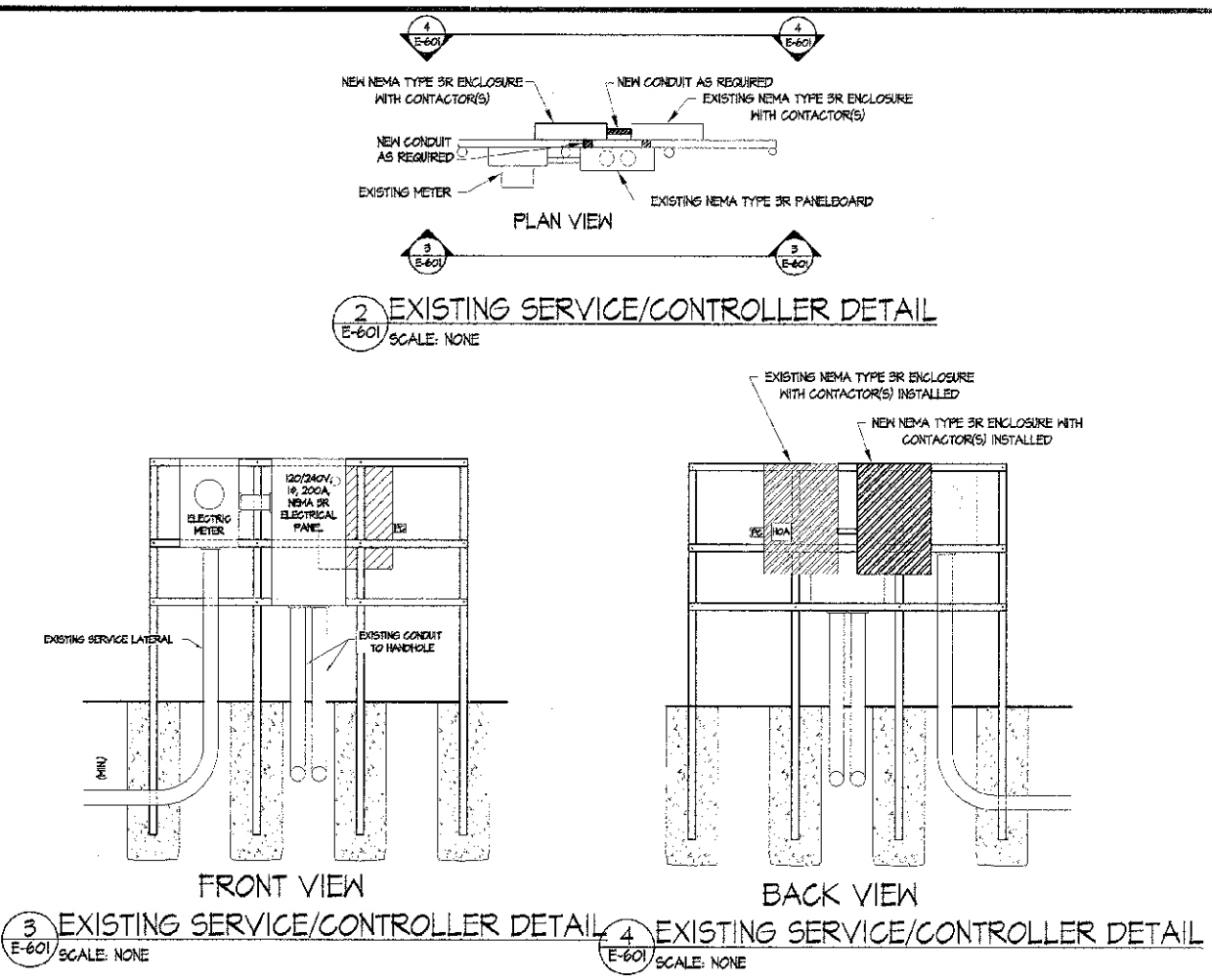
**E-501**



1 LIGHTING PEDESTAL WIRING DIAGRAM - PHASE 2  
E-601 SCALE: NONE

SERVICE PEDESTAL WIRING DIAGRAM KEYED NOTES (X)

- CONTRACTOR SHALL EXPAND SYSTEM AS INDICATED. PROVIDE ADDITIONAL NEMA 3R ENCLOSURE AS REQUIRED. ADDITIONAL ENCLOSURE SHALL BE MOUNTED ADJACENT EXISTING EQUIPMENT AND CONTRACTOR SHALL PROVIDE MOUNTING HARDWARE, RACEWAY, STRUCTURAL SUPPORTS AND FASTENING DEVICES REQUIRED FOR A COMPLETE FUNCTIONAL SYSTEM. EXPOSED CONDUIT SHALL BE RIGID GALVANIZED STEEL.
- PROVIDE NEW 12 POLE-SPACE (MINIMUM) CONTACTOR AS REQUIRED. CONTACTOR SHALL BE RATED FOR 30A CIRCUITS MINIMUM. MAKE CONNECTIONS AS INDICATED AND AS REQUIRED FOR COMPLETE FUNCTIONAL SYSTEM.
- MAKE CONNECTIONS TO CONTACTOR AS REQUIRED. CONDUCTORS SHALL BE #8 AWG MINIMUM.
- EXTEND CONTROL CIRCUITRY AS REQUIRED FOR HAND-OFF-AUTO OPERATION OF CONTACTOR.



2 EXISTING SERVICE/CONTROLLER DETAIL E-601 SCALE: NONE  
3 EXISTING SERVICE/CONTROLLER DETAIL E-601 SCALE: NONE  
4 EXISTING SERVICE/CONTROLLER DETAIL E-601 SCALE: NONE

CITY OF BUNKER HILL, WARREN STREET PANEL FOR WASHINGTON STREET LIGHTING				120/240 VOLTS 200 AMPS		1 Ø 3 WIRE MAIN BREAKER	
CIRCUIT DESCRIPTION	KVA	AMP		AMP	KVA	CIRCUIT DESCRIPTION	
LIGHT POLE #1 RECEPTACLE	1.9	20	1	20	1.9	LIGHT POLE #2 RECEPTACLE	2
LIGHT POLE #3 RECEPTACLE	1.9	20	3	20	1.9	LIGHT POLE #4 RECEPTACLE	4
LIGHT POLE #5 RECEPTACLE	1.9	20	5	20	1.9	LIGHT POLE #6 RECEPTACLE	6
LIGHT POLE #7 RECEPTACLE	1.9	20	7	20	1.9	LIGHT POLE #8 RECEPTACLE	8
LIGHT POLE #9 RECEPTACLE	1.9	20	9	20	1.9	LIGHT POLE #10 RECEPTACLE	10
* LIGHT POLE #11 RECEPTACLE	1.2	20	11	20	1.2	LIGHT POLE #12 RECEPTACLE	12
* LIGHT POLE #15 RECEPTACLE	1.2	20	13	20	1.2	LIGHT POLE #16 RECEPTACLE	14
* LIGHT POLES #17, 19 & 21 RECEPTACLE	1.2	20	15	20	1.2	LIGHT POLES #18, 20 & 22 RECEPTACLE	16
SPARE FOR FUTURE LIGHT POLE RECEPTACLE	--	20	17	20	--	SPARE FOR FUTURE LIGHT POLE RECEPTACLE	18
SPARE FOR FUTURE LIGHT POLE RECEPTACLE	--	20	19	20	--	SPARE FOR FUTURE LIGHT POLE RECEPTACLE	20
SPARE FOR FUTURE LIGHT POLE RECEPTACLE	--	20	21	20	--	SPARE FOR FUTURE LIGHT POLE RECEPTACLE	22
SPARE FOR FUTURE LIGHT POLE RECEPTACLE	--	20	23	20	--	SPARE FOR FUTURE LIGHT POLE RECEPTACLE	24
SPARE FOR FUTURE LIGHT POLE RECEPTACLE	--	20	25	20	--	SPARE FOR FUTURE LIGHT POLE RECEPTACLE	26
LIGHTING POLES #1-10 (PHASE 1)	5.0	20	27	20	--	SPARE FOR FUTURE LIGHTS	28
	--	--	29	--	--		30
* LIGHTING POLES #11-22 (PHASE 2)	5.6	20	31	--	--	BLANK	32
	--	--	33	--	--	BLANK	34
BLANK	--	--	35	--	--	BLANK	36
BLANK	--	--	37	--	--	BLANK	38
BLANK	--	--	39	--	--	BLANK	40
BLANK	--	--	41	--	--	BLANK	42
CONNECTED LOAD: 33.6 KVA		140.0 AMPS		DEMAND LOAD: 20.5 KVA		85.4 AMPS	

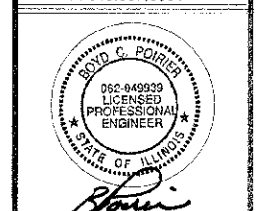
\* REVISE PANEL SCHEDULE TO INDICATE NEW CIRCUIT ASSIGNMENTS)

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10-00003-01-LT	MACOUPIN	6	5
CITY OF BUNKER HILL		CONTRACT 93580	

**HA**  
HENEGHAN  
AND ASSOCIATES, P.C.  
ENGINEERS \* SURVEYORS  
1904 STATE HIGHWAY 16,  
JERSEYVILLE, IL  
PH: 618-496-6410  
DESIGN FIRM NO. 184-002692  
EXPIRES APRIL 30, 2013

CONSULTANTS  
**HR**  
HURST-ROSCHÉ  
ENGINEERS, INC.  
PROFESSIONAL DESIGN NUMBER: 184-00098  
1400 E. TREMONT  
HILLSBORO, IL  
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**Energy Plus**  
ASSOCIATES  
Product Management & Energy Services  
6437 STEELECREST LANE  
TROY, IL  
PH: 618.667.0000  
F: 618.667.0001



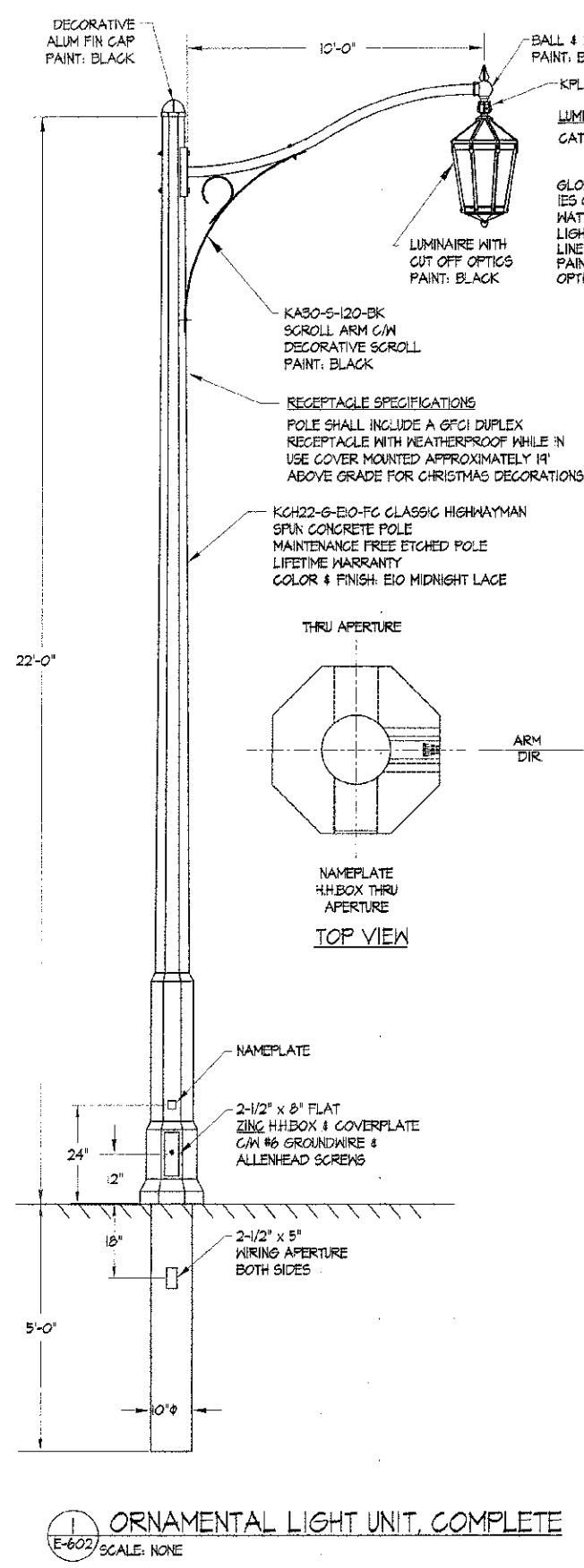
SIGNATURE: *Scott G. Poirier*  
DATE: 3/30/2012  
11/30/2013  
LICENSE EXPIRES

BUNKER HILL STREET LIGHTING REPLACEMENT  
BUNKER HILL, MACOUPIN COUNTY, ILLINOIS

MARK	DATE	DESCRIPTION

DATE: 03/2012  
PROJECT NO: 153-4191  
DESIGN: BG DRAWN: BG CHECK: BCP

ELECTRICAL  
DETAILS  
**E-601**



**1** ORNAMENTAL LIGHT UNIT, COMPLETE  
E-602 SCALE: NONE

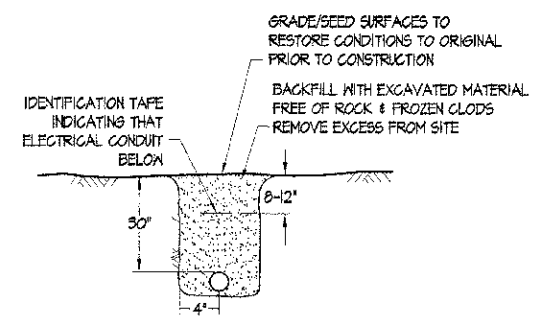
**LUMINAIRE SPECIFICATIONS**  
 CATALOG NO.: K56-C-P-SAR-III-250(MOG)  
 HPS-240-KPL10-BK (OR APPROVED EQUAL)  
 GLOBE MATL.: ACRYLIC TYPE III  
 IES CLASSIFIC.: TYPE III  
 WATTAGE: 250W  
 LIGHT SOURCE: HIGH PRESSURE SODIUM  
 LINE VOLTAGE: 240V  
 PAINT: BLACK  
 OPTIONS: KPL-10 LEVELLING DEVICE

**POLE SPECIFICATIONS**  
 CATALOG NO.: KCH22-G-E10-FG  
 S/P KASO-5 (OR APPROVED EQUAL)  
 OCTAGONAL MIDNIGHT LACE  
 FINISH: ETCHED  
 SECTION: 5-3/8" FL/FL  
 COLOUR: 10"φ  
 POLE TOP: 27'-0"  
 POLE BUTT: 1461 lbs.  
 APPROX WEIGHT: 1461 lbs.

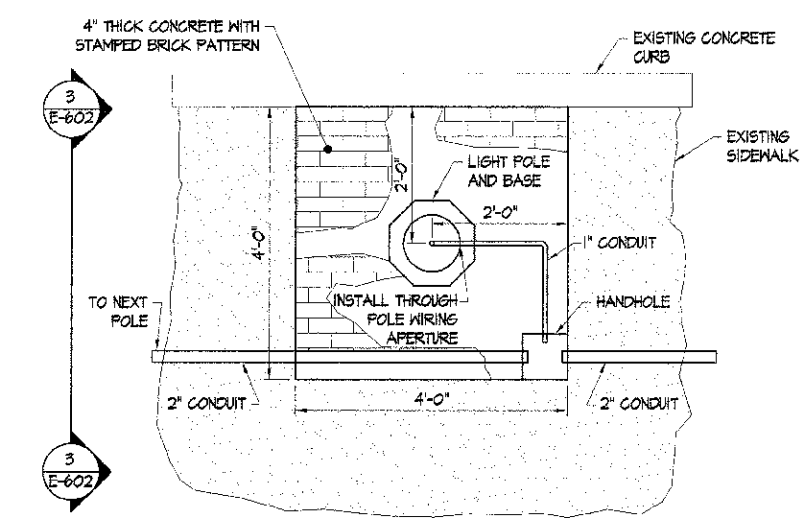
**ARM SPECIFICATIONS**  
 CATALOGUE NO.: KASO-5-120-BK  
 QUANTITY: 10  
 MATERIAL: ALUMINUM  
 PAINT: BLACK

**FLAGPOLE HOLDERS**  
 PROVIDE A FLAGPOLE HOLDER ON EACH POLE MOUNTED ON A 45 DEGREE ANGLE AT 4 FEET 3 INCHES ABOVE GRADE. HOLDER SHALL BE PROVIDED BY THE POLE MANUFACTURER.

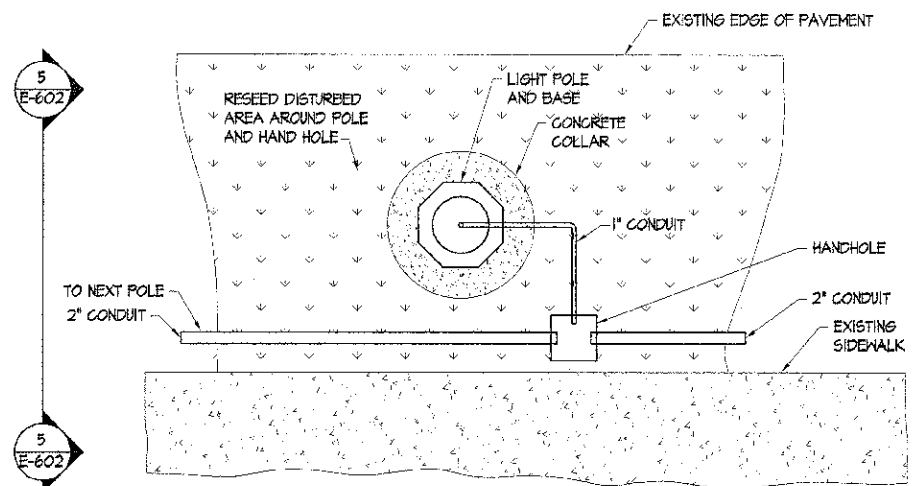
**BANNER ARMS**  
 PROVIDE ONE SET OF BANNER ARMS ON EACH POLE MOUNTED WITH THE TOP ARM AT 16 FEET ABOVE GRADE AND THE BOTTOM ARM AT 12 FEET ABOVE GRADE. BANNER ARMS SHALL BE PROVIDED BY THE POLE MANUFACTURER.



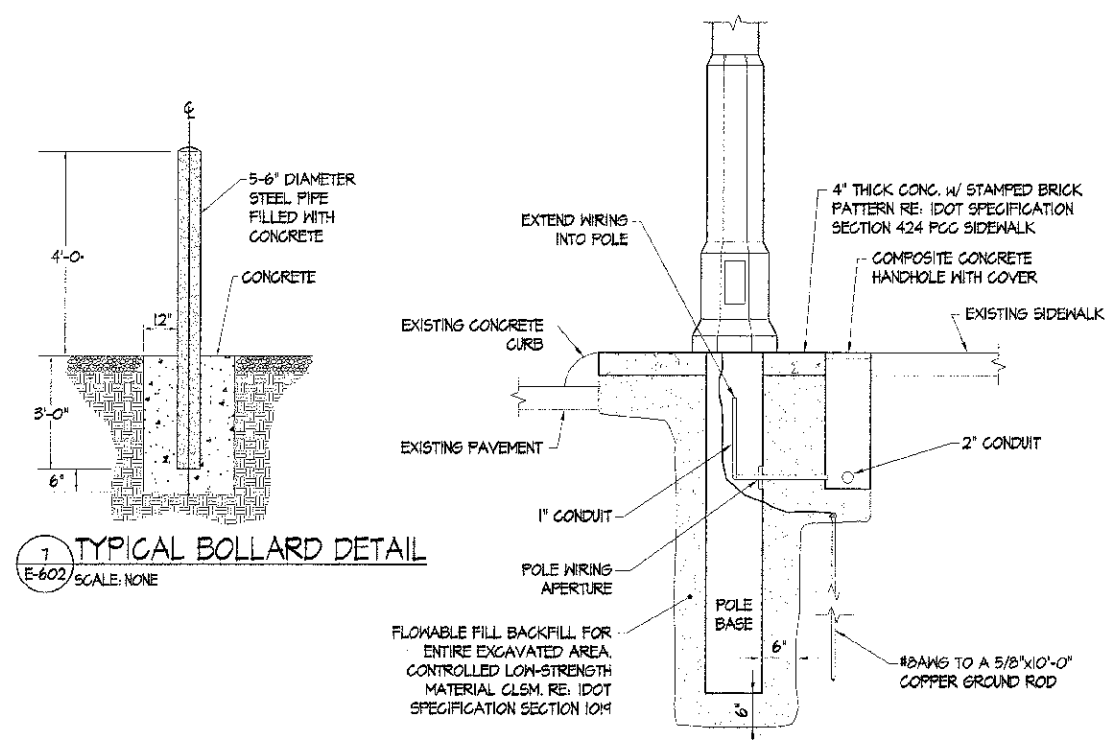
**6** TRENCH DETAIL - UNIMPROVED AREAS  
E-602 SCALE: NONE



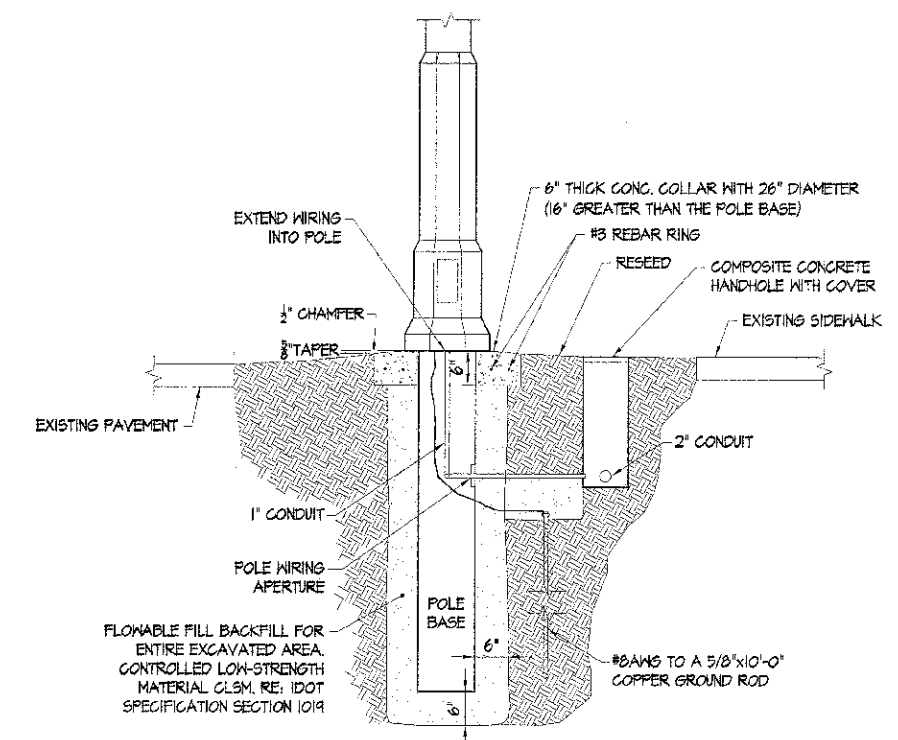
**2** DECORATIVE LIGHT POLE BASE  
E-602 SCALE: 3/4" = 1'-0"



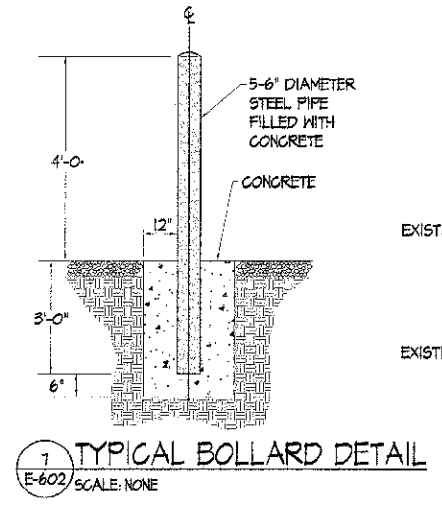
**4** LIGHT POLE FOUNDATION - SPECIAL  
E-602 SCALE: 3/4" = 1'-0"



**3** DECORATIVE LIGHT POLE BASE  
E-602 SCALE: 3/4" = 1'-0"



**5** LIGHT POLE FOUNDATION - SPECIAL  
E-602 SCALE: 3/4" = 1'-0"



**7** TYPICAL BOLLARD DETAIL  
E-602 SCALE: NONE

**HN**  
 HENEGHAN  
 AND ASSOCIATES, P.C.  
 ENGINEERS - SURVEYORS  
 1024 STATE HIGHWAY 16,  
 JERSEYVILLE, IL  
 #1.619-490-0416  
 DESIGN FIRM NO. 184-002862  
 EXPIRES APRIL 30, 2013

**HR**  
 HURST-ROSCHÉ  
 ENGINEERS, INC.  
 PROFESSIONAL DESIGN NUMBER: 184-000020  
 1400 E. TREMONT  
 HILLSBORO, IL  
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**Energy Pies**  
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 TROY, IL  
 PH: 618.667.0000  
 F: 618.667.0001

**BOYD G. POHMEYER**  
 082-648939  
 LICENSED  
 PROFESSIONAL  
 ENGINEER  
 STATE OF ILLINOIS  
 SIGNATURE: *Boyd G. Pohmeyer*  
 DATE: 3/30/2012  
 LICENSE EXPIRES: 11/30/2013

BUNKER HILL STREET LIGHTING REPLACEMENT  
 BUNKER HILL, MACOUPIN COUNTY, ILLINOIS

MARK	DATE	DESCRIPTION

DATE: 03/20/12  
 PROJECT NO.: 153-4191  
 DESIGN: BCP DRAWN: BG CHECK: MAR2

POLE & BASE DETAILS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10-00003-01-LT	MACOUPIN	6	6
CITY OF BUNKER HILL		CONTRACT 93580	

**E-602**