

LEE COUNTY
DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

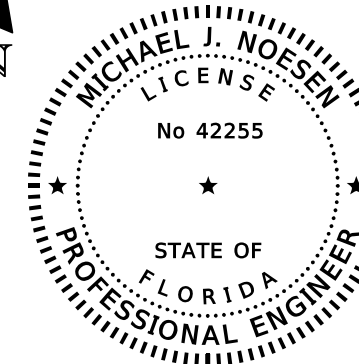
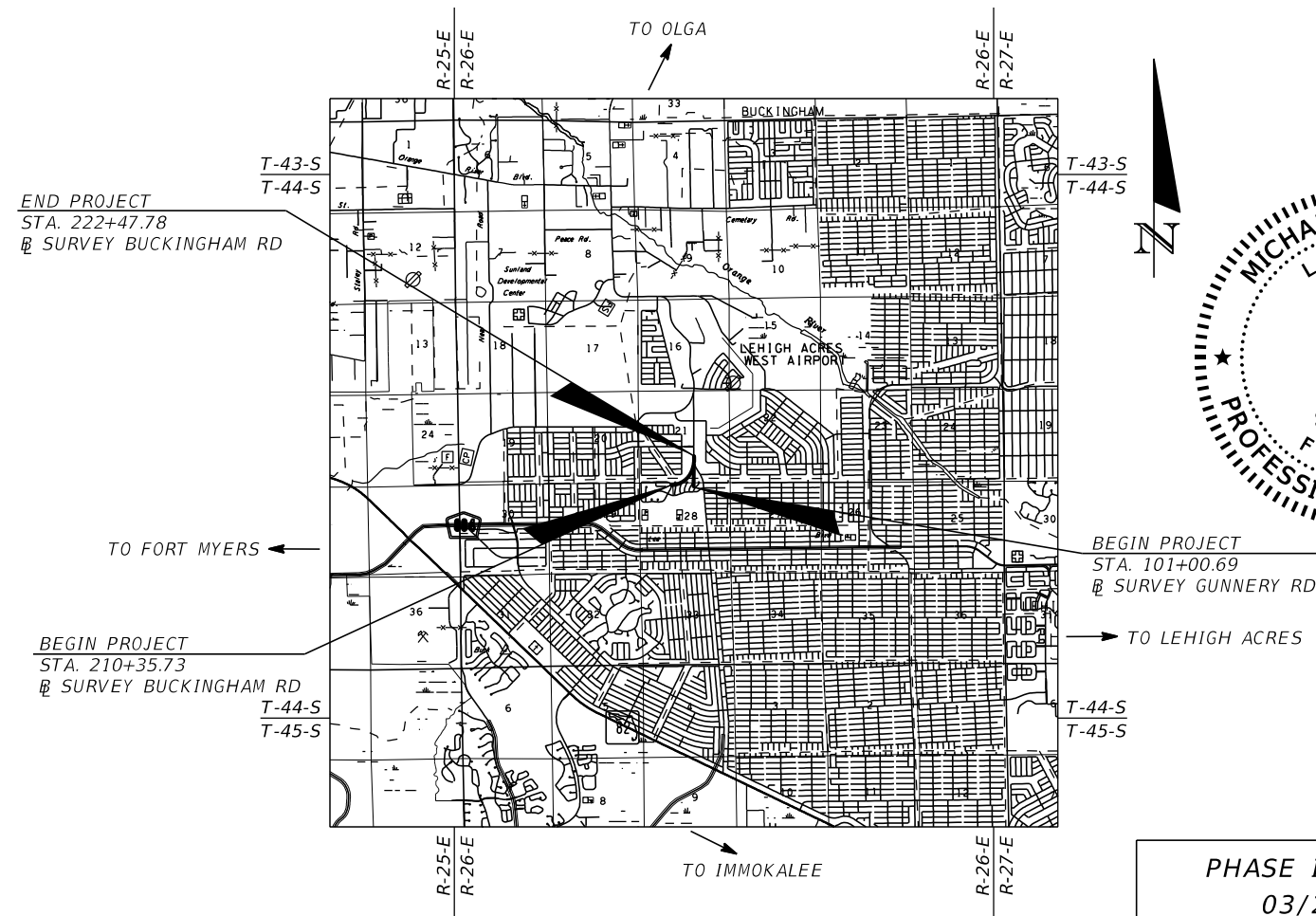
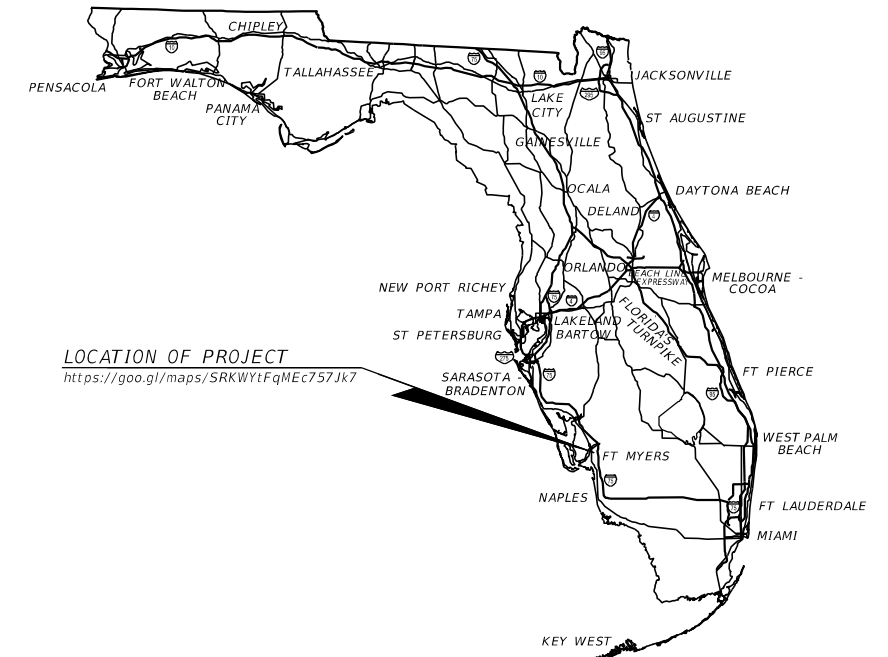
FINANCIAL PROJECT ID 442123-1-58-01
(FEDERAL FUNDS)

BUCKINGHAM RD AT GUNNERY RD N
INTERSECTION IMPROVEMENT (ROUNDAUT)

LIGHTING PLANS

INDEX OF LIGHTING PLANS

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THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL
PRINTED COPIES OF THIS DOCUMENT ARE
NOT CONSIDERED SIGNED AND SEALED
AND THE SIGNATURE MUST BE VERIFIED
ON ANY ELECTRONIC COPIES.

LIGHTING PLANS
ENGINEER OF RECORD:
MICHAEL J. NOESEN, P.E.
P.E. LICENSE NUMBER 42255
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY., SUITE 200
TAMPA, FL 33637
813-978-8688

LCDOT PROJECT MANAGER:
ALEJANDRO J. SLAIBE, P.E.

REVIEWER'S NOTE:

LCDOT REQUESTED LIGHTING TO BE EXTENDED THROUGH THE SUNSET/GUNNERY RD, SUNSET/BUCKINGHAM RD AND BUCKINGHAM RD/HOMESTEAD RD INTERSECTIONS. FDOT DISALLOWED THE ADDITIONAL FUNDS NEEDED FOR THE LIGHTING EXTENSION, THUS THE LIGHTING PLANS DO NOT REFLECT LIGHTING AT THE INTERSECTIONS NAMED ABOVE.

FISCAL YEAR	SHEET NO.
21	L-1

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS								TOTAL THIS SHEET		GRAND TOTAL	
			L-5		L-6		L-7		L-8		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL				
630-2-11	CONDUIT, F& I, OPEN TRENCH	LF	200		2555		195		660		3610		3610	
635-2-11	PULL & SPLICE BOX, F&I, 17" X 30" COVER SIZE (LCDOT)	EA			14						14		14	
639-1-122	ELECTRICAL POWER SERVICE, F& I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS			1						1		1	
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II, SERVICE POLE (12')	EA			2						2		2	
715-1-12	LIGHTING CONDUCTORS, F&I, INSULATED, NO. 8 - 6	LF	672		6492		729		2220		10113		10113	
715-4-13	LIGHT POLE COMPLETE, FURNISH AND INSTALL STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT	EA	1		13		2		2		18		18	
715-7-11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA			1						1		1	
715-500-1	POLE CABLE DISTRIBUTION SYSTEM, FURNISH AND INSTALL, CONVENTIONAL	EA	1		13		2		2		18		18	

PAY ITEM FOOTNOTES

- PAY ITEM 630-2-11:
THE CONDUITS SHALL BE FITTED WITH BELL ENDS OR EQUIVALENT FITTINGS PRIOR TO THE PULLING OF ANY WIRE INTO THE CONDUITS.
- PAY ITEM 635-2-11:
PULL BOXES SHALL FOLLOW SECTION 3 IN LCDOT SPECIFICATIONS.
- PAY ITEM 639-1-122:
THIS PAY ITEM IS FOR THE COST OF ALL THE POWER SERVICE ASSEMBLY COMPONENTS FOR EACH LOAD CENTER PAID UNDER A SEPARATE PAY ITEM NUMBER.
- PAY ITEM 641-2-12:
CONCRETE SERVICE POLES TYPE P-II FOR THE POWER SERVICE ASSEMBLY AND LOAD CENTER SHALL BE 12 FEET.
- PAY ITEM 715-7-11:
THIS PAY ITEM FOR THE LOAD CENTER SHALL INCLUDE BUT NOT LIMITED TO NEMA 4X POLE MOUNT CABINET, ADDITIONAL ENCLOSURES, PANEL BOARDS, MAIN BREAKER, CIRCUIT BREAKERS, LIGHTNING PROTECTION, PHOTO-ELECTRIC ASSEMBLY, CONTACTOR, H.O.A. SWITCH, CONDUIT AND FEEDER CONDUCTORS FROM THE POWER SERVICE ASSEMBLY TO THE LIGHTING CONTROL PANEL AND ALL MISCELLANEOUS HARDWARE FOR A COMPLETE INSTALLATION. TWO TYPE P-II CONCRETE SERVICE POLES FOR THE LOAD CENTER ASSEMBLY ARE PAID FOR SEPARATELY.

LOAD CENTER SHALL BE SINGLE PHASE, TWO WIRE, 480 VAC.

REVISIONS				MICHAEL J. NOESEN, P.E. P.E. LICENSE NUMBER 42255 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637		BUCKINGHAM RD & GUNNERY RD ROUNDABOUT	<p style="text-align: center;">TABULATION OF QUANTITIES</p>	SHEET NO. L-2
DATE	DESCRIPTION	DATE	DESCRIPTION					

LIGHTING GENERAL NOTES

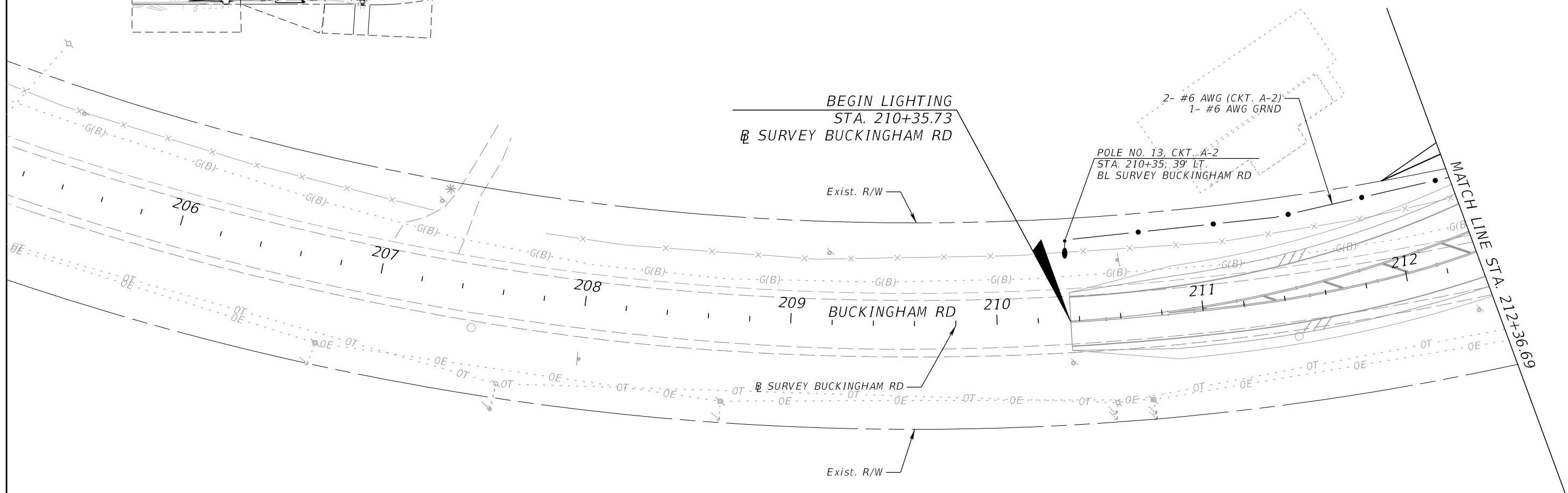
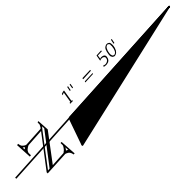
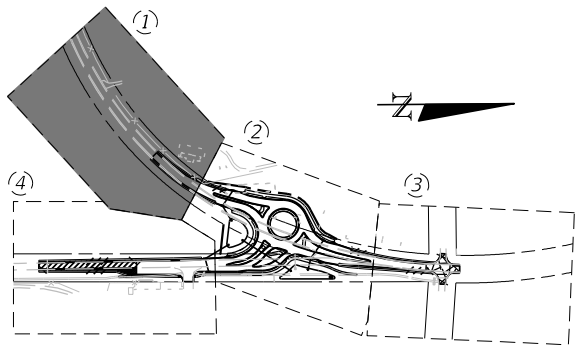
1. ADHERE TO REQUIREMENTS IN "LEE COUNTY DEPARTMENT OF TRANSPORTATION PLAN SPECIFICATIONS FOR SIGNAL & STREET LIGHTING", DATE REVISED JANUARY 2021. CONTACT LEE COUNTY DEPARTMENT OF TRANSPORTATION (LCDOT) FOR ANY QUESTIONS REGARDING EQUIPMENT OR INSTALLATION REQUIREMENTS. FOLLOW THE FDOT GOVERNING STANDARDS AND SPECIFICATIONS FOR ALL ITEMS NOT COVERED BY LEE COUNTY SPECIFICATIONS.
2. SPARE CONDUIT AT PAVEMENT CROSSINGS SHALL BE CAPPED AT BOTH ENDS.
3. PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT, FOR APPROVAL EQUIPMENT SPECIFICATION OR DESIGN DATA FOR ALL MATERIAL PROPOSED FOR THE PROJECT. THE SHOP DRAWINGS AND DESIGN DATA FOR ROADWAY LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AND LEE COUNTY DOT TRAFFIC VIA LCDOTPROJECTS@LEEGOV.COM IN ACCORDANCE WITH THE SPECIFICATIONS.
4. PROVIDE SHOP DRAWINGS OF THE PHOTOMETRIC CALCULATIONS FOR LUMINAIRES OTHER THAN THE BASIS OF DESIGN. SEE POLE DATA AND LEGEND SHEET AND PAY ITEM FOOTNOTES FOR ADDITIONAL INFORMATION. MEET ALL PHOTOMETRIC REQUIREMENTS IN THE CONTRACT DOCUMENTS.
5. THE LOCATIONS OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, ARE APPROXIMATE AND BASED ON THE INFORMATION FURNISHED TO THE ENGINEER BY THE UTILITY OWNER(S) AND ARE SHOWN AS NOTICE TO THE CONTRACTOR THAT UNDERGROUND UTILITIES EXIST. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY OWNER(S) FOR LOCATION AND STAKING OF UNDERGROUND FACILITIES BEFORE EXCAVATING.
6. BEFORE EXCAVATING, IT IS REQUIRED THAT NOTICE BE GIVEN TO SUNSHINE STATE ONE CALL OF FLORIDA, INC. (SSOCOF) AT 1-800-432-4770 A MINIMUM OF TWO (2) FULL BUSINESS DAYS BEFORE WORK BEGINS. NOT ALL UTILITY COMPANIES ARE MEMBER OF SSOCOF.
7. THE LOCATION OF THE POLES, CONDUCTORS, CONDUITS AND JUNCTION BOXES ARE DIAGRAMMATIC ONLY AND MAY BE SHIFTED WITHIN THE RIGHT-OF-WAY BY THE CONTRACTOR WITH APPROVAL FROM THE ENGINEER TO ACCOMMODATE LOCAL CONDITIONS AND EXISTING UTILITY LOCATIONS.
8. ALUMINUM POLES, LUMINAIRES AND BASES SHALL BE FABRICATED IN ACCORDANCE WITH AASHTO'S "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", AND SHALL HAVE BEEN TESTED BY FHWA APPROVED METHODS (LATEST EDITION). CERTIFICATION FOR TESTS SHALL BE SUBMITTED WITH THE SHOP DRAWINGS.
9. ALL ELECTRICAL WORK SHALL MEET ALL REQUIREMENTS OF THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC), THE NATIONAL ELECTRICAL SAFETY CODE (NESC) AND THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ALL COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER NEC REQUIREMENTS.
10. IN ACCORDANCE WITH NEC, IDENTIFY ALL CIRCUITS AND EQUIPMENT WITH "LAMACOID TAGS". INSTALL SIMILAR TAGS OF STAINLESS STEEL IDENTIFYING THE CIRCUIT FOR EACH LUMINAIRE AT ACCESS HAND HOLE FOR EACH POLE.
11. NOTIFY FLORIDA POWER AND LIGHT (FP&L) AT LEAST THREE (3) FULL BUSINESS DAYS PRIOR TO ANY INSTALLATION THAT IS WITHIN THE DISTANCE PER CURRENT OSHA REQUIREMENTS OF ENERGIZED ELECTRICAL CONDUCTORS. FP&L, AT ITS OPTION, WILL ASSIST THE CONTRACTOR TO COVER UP ENERGIZED CONDUCTORS AT INSTALLATION SITES OR TAKE OTHER SAFETY PRECAUTIONS AS NECESSARY. EXTREME CAUTION SHALL BE EXERCISED AT ALL TIMES IN PERFORMANCE OF WORK AROUND THE PRIMARY HIGH VOLTAGE COMPONENTS.
12. OVERHEAD FACILITIES ARE TO REMAIN ENERGIZED AND IN PLACE. TABLE "A", MINIMUM CLEARANCE DISTANCES SPECIFIED IN SUBPART CC OF OSHA RULE 1926 (AS THEY PERTAIN TO CRANE/DERRICK OPERATIONS), AND/OR THOSE MINIMUM DISTANCES SPECIFIED IN 29 CRF1910.333(c)(3)(i)(A) AND (iii)(A) FOR WORK IN PROXIMITY TO POWER LINES NOT COVERED BY THIS SUBPART CC, ARE TO BE MAINTAINED.
13. THE POWER SERVICE CONDUIT AND CABLE SHALL BE INSTALLED FROM THE PROPOSED LOAD CENTER TO THE LEFT-FRONT OF THE POWER SOURCE TRANSFORMER. THIS TRANSFORMER IS LABELED WITH THE NUMBER 8 ON THE UPPER-LEFT CORNER OF THE TRANSFORMER FRONT. AS AN OPTION, INSTALL EMPTY POWER SERVICE CONDUIT TO THE LEFT-FRONT OF THE SAID TRANSFORMER AND THEN PULL THE WIRES ON AN ADVANCED STAND-BY APPOINTMENT SET-UP WITH FP&L. THE CONTRACTOR SHALL CONTACT JUAN CRUZ (FP&L) AT PHONE: (941) 423-4842 AND/OR EMAIL: JUAN.CRUZ@FPL.COM OR THE LOCAL FP&L SERVICE PLANNER A MINIMUM OF FOUR (4) WEEKS PRIOR OF PULLING THE SERVICE CABLES INTO THE FP&L TRANSFORMER. THE CONTRACTOR SHALL NOT PUSH THE CABLES INTO THE TRANSFORMER WITHOUT AN FP&L CREW PRESENT.
14. AT LOCATIONS WHERE THE PROXIMITY OF THE INSTALLATION IS CLOSE TO THE EXISTING OVERHEAD POWER, AS DETERMINED BY THE ENGINEER, A "LOW PROFILE" RIG SHALL BE REQUIRED TO DRILL THE FOUNDATION AND INSTALL THE LIGHT POLES.
15. WIRE PULLING INSTRUCTIONS: CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET AND MEET MANUFACTURERS REQUIREMENTS. USE PULLING COMPOUND PER MANUFACTURER'S REQUIREMENTS. ALL BENDS SHALL NOT BE LESS THAN RECOMMENDED BY THE NEC OR NESC FOR CABLE USED.
16. NO SCREW TYPE BASE FOUNDATIONS SHALL BE USED.
17. AT LOCATIONS WHERE UNDERGROUND UTILITIES ARE WITHIN TWO FEET OF THE LIGHT POLE FOOTER OR CONDUIT RUN, THE CONTRACTOR SHALL HAND DIG THE FIRST FOUR FEET OF THE HOLE FOR THE POLE FOUNDATION AND CONDUIT RUN.
18. THE NEW LIGHTING SYSTEM CONDUIT SHALL GO STRAIGHT TO THE PROPOSED LIGHT POLE FOUNDATION. ALL SPLICES SHALL BE DONE IN THE TRANSFORMER BASES.
19. ALL CONDUIT TRENCHES SHALL BE BACKFILLED COMPLETELY TO PROVIDE SAFE CROSSING BY THE END OF EACH WORKING DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE. THE CONTRACTOR SHALL NOT OPEN ANY AREA THAT CANNOT BE BACKFILLED IN THE SAME WORK PERIOD.
20. THE LIGHTING SYSTEM WILL BE MAINTAINED BY LEE COUNTY DEPARTMENT OF TRANSPORTATION (LCDOT) UPON FINAL ACCEPTANCE.
21. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL SIDE STREETS, PRIVATE AND COMMERCIAL DRIVEWAYS AT ALL TIMES DURING THE CONSTRUCTION OPERATION.
22. UPON PASSING THE FINAL INSPECTION, SEND A WRITTEN REQUEST TO THE FOLLOWING:

LEE COUNTY DEPARTMENT OF TRANSPORTATION - TRAFFIC
5650 ENTERPRISE PARKWAY
FORT MYERS, FLORIDA 33905
PHONE: (239) 533-9500
LCDOTPROJECTS@LEEGOV.COM
23. WHEN REQUESTING TO TRANSFER MAINTENANCE FROM THE CONTRACTOR TO LCDOT, LCDOT WILL RESPOND WITHIN FIVE (5) WORKING DAYS TO ESTABLISH A TIME TABLE FOR THE TRANSFER OF MAINTENANCE RESPONSIBILITY.
24. WHEN CONSTRUCTION IS COMPLETE, A HARD COPY SET OF "AS-BUILT" PLANS IN ADDITION TO AN ELECTRONIC COPY (PDF) IS TO BE SUBMITTED TO:

LEE COUNTY DEPARTMENT OF TRANSPORTATION - TRAFFIC
5650 ENTERPRISE PARKWAY
FORT MYERS, FLORIDA 33905
PHONE: (239) 533-9500
LCDOTPROJECTS@LEEGOV.COM
25. LIGHT POLES AND PULL BOXES SHALL NOT BE LOCATED IN DRAINAGE SWALES, DITCHES, WETLANDS, DRIVEWAYS, SURFACE WATER, PAVED SHOULDERS OR PEDESTRIAN RAMPS.
26. THE CONTRACTOR SHALL BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUIT OR PULL BOXES ARE TO BE INSTALLED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.
27. ALL EXCESS DIRT AND DEBRIS EXCAVATED FROM POLE FOOTER SHALL BE REMOVED DAILY TO AREAS APPROVED BY THE ENGINEER AND PAID FOR UNDER PAY ITEM 715-4-13.
28. ALL CONDUIT INSTALLATION NEAR TREES SHALL MEET ANSI 300 STANDARDS.

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DATE	DESCRIPTION	DATE	DESCRIPTION						L-3

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MICHAEL J. NOESEN, P.E.
 P.E. LICENSE NUMBER 42255
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY,
 SUITE 200
 TAMPA, FL 33637

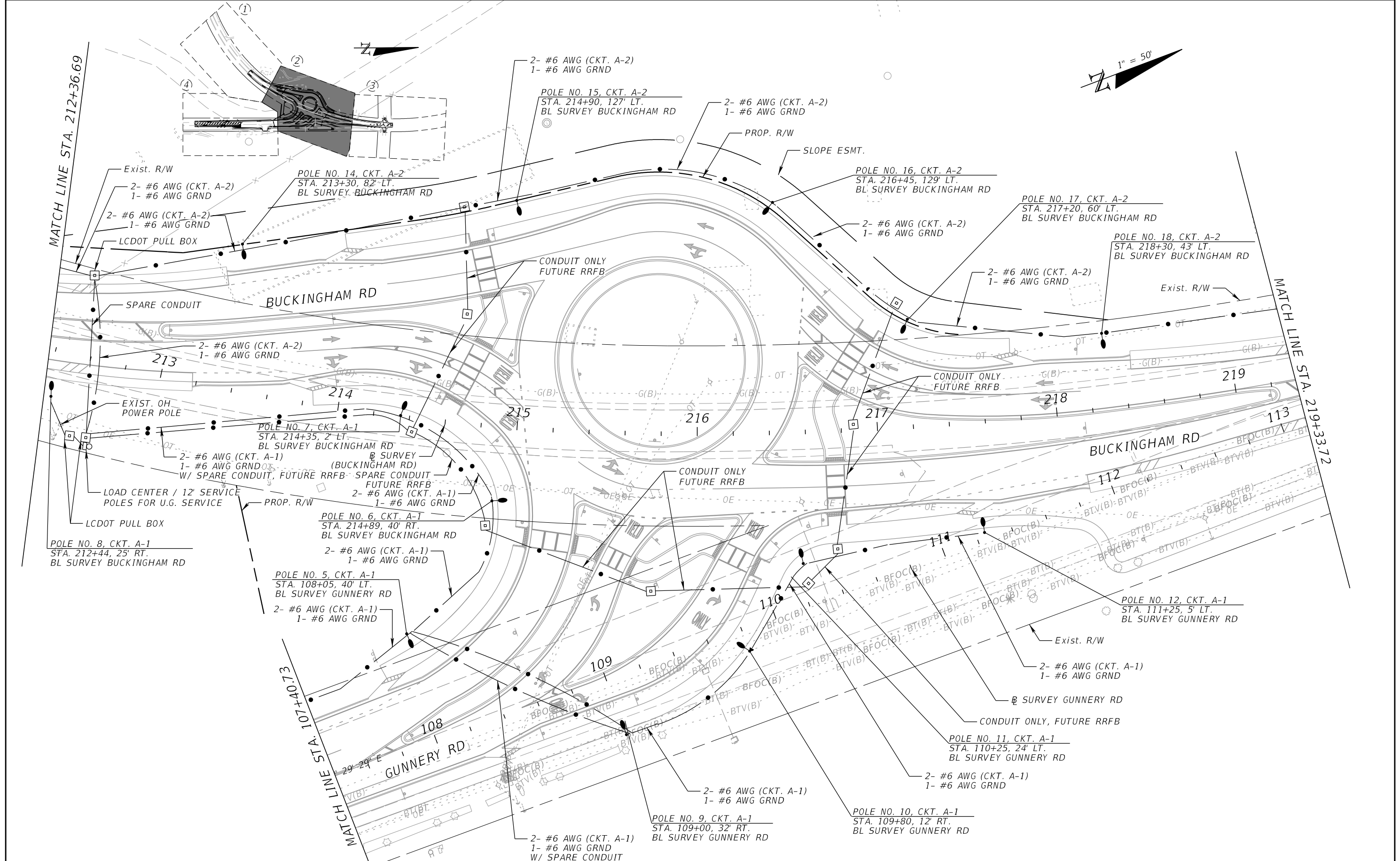


BUCKINGHAM RD & GUNNERY RD
 ROUNDABOUT
 FINANCIAL PROJECT ID
 442123-1-58-01

LIGHTING PLAN (1)

SHEET NO.
 L-5

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 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY,
 SUITE 200
 TAMPA, FL 33637



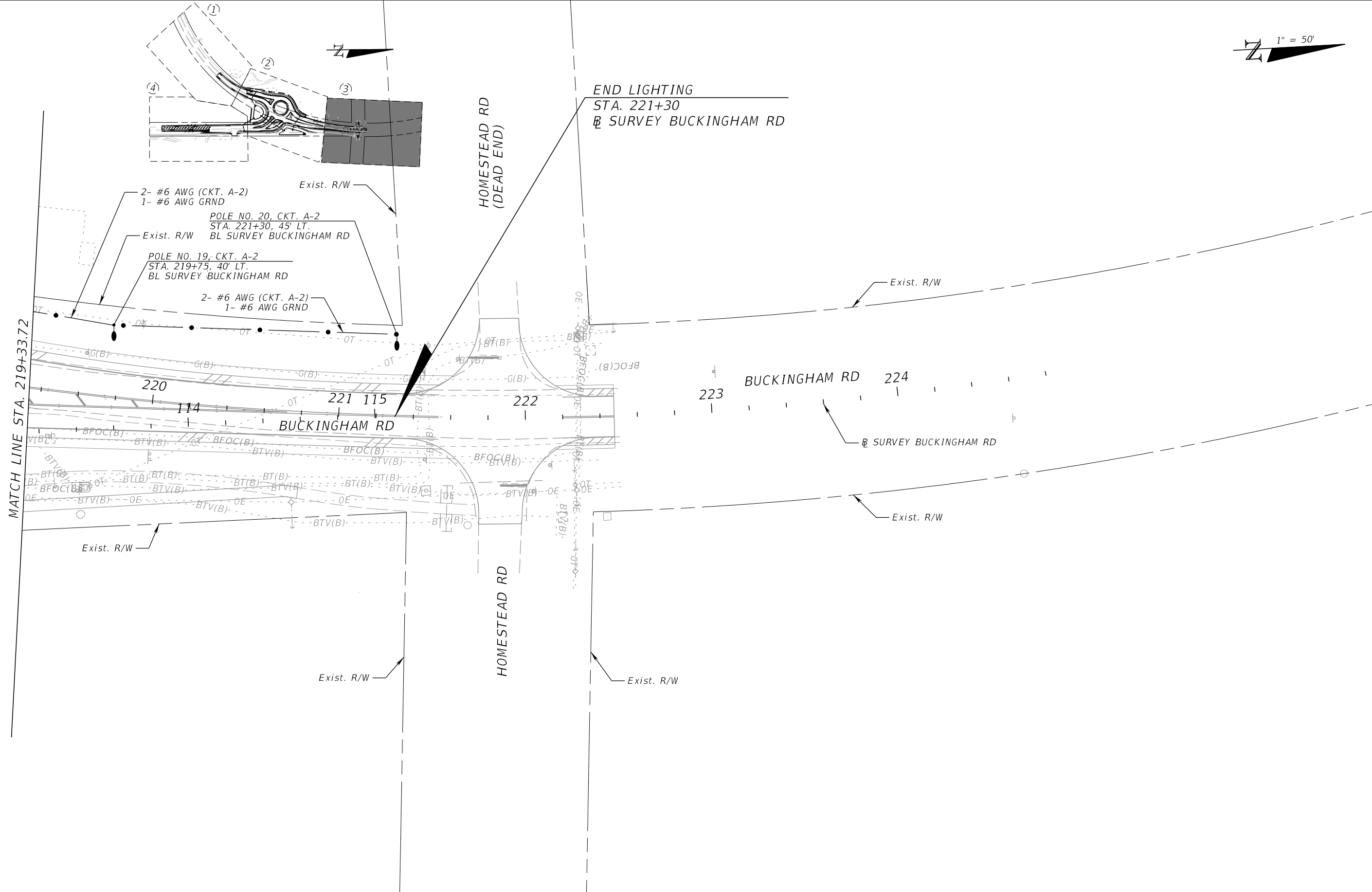
BUCKINGHAM RD & GUNNERY RD
 ROUNDABOUT
 FINANCIAL PROJECT ID
 442123-1-58-01

LIGHTING PLAN (2)

SHEET NO.
 L-6

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1" = 50'



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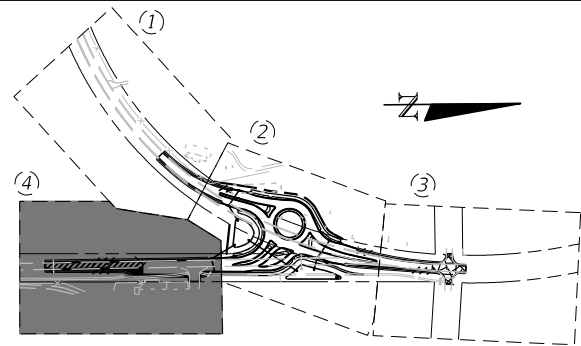


BUCKINGHAM RD & GUNNER RD
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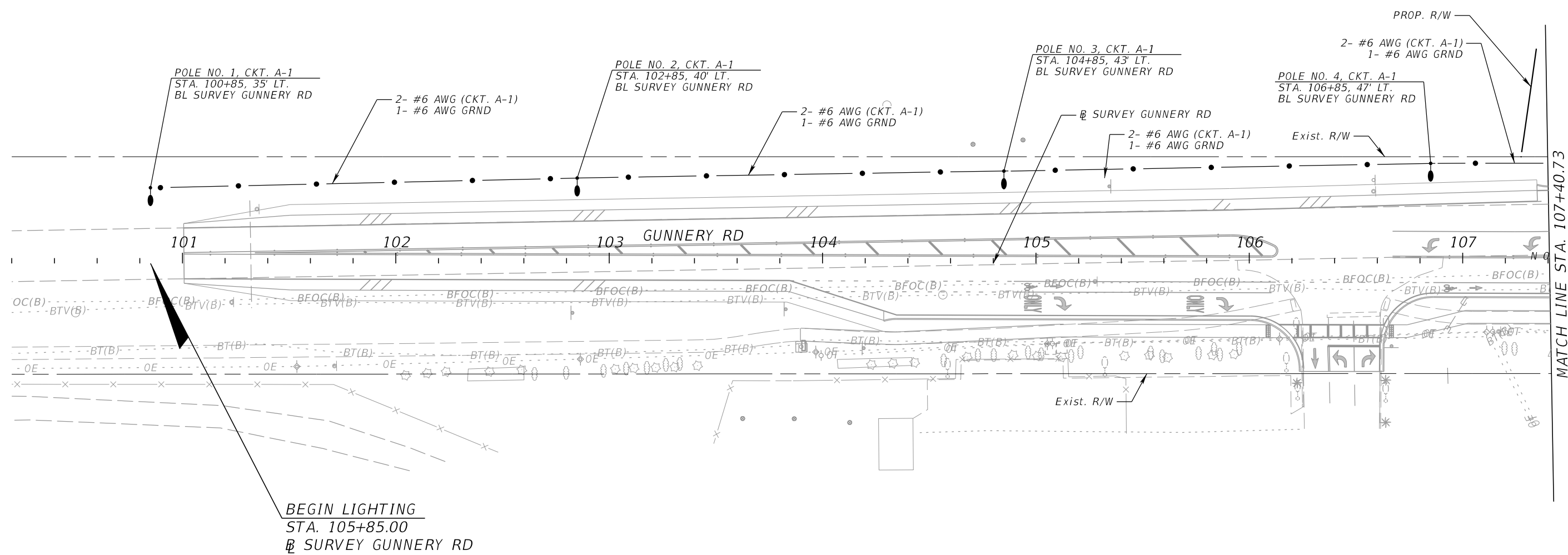
LIGHTING PLAN (3)
 L-7

SHEET NO.
 L-7

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1" = 50'



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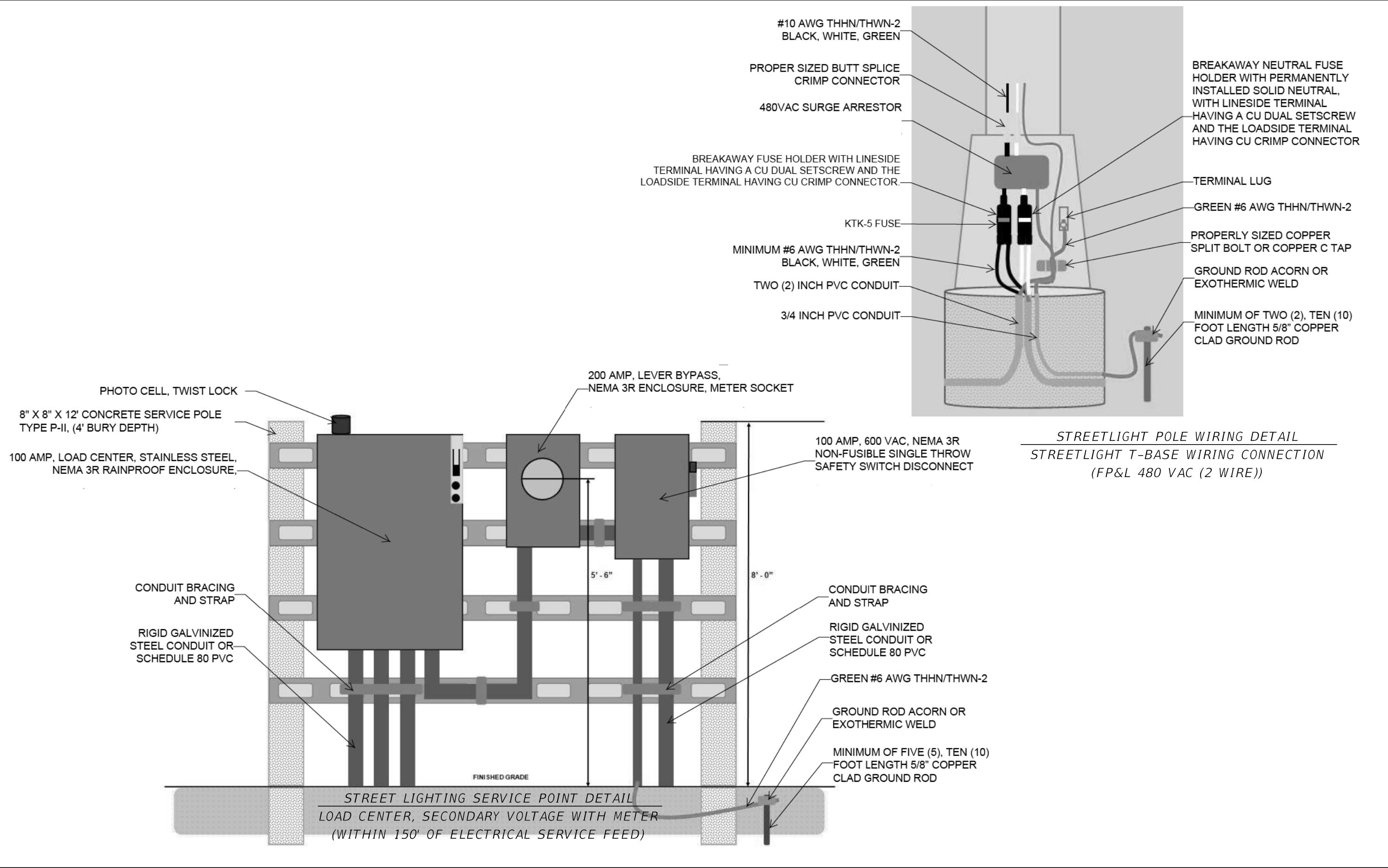


BUCKINGHAM RD & GUNTERY RD
 ROUNDABOUT
 FINANCIAL PROJECT ID
 442123-1-58-01

LIGHTING PLAN (4)

SHEET NO.
 L-8

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BUCKINGHAM RD & GUNNERY RD
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LIGHT POLE AND
SERVICE POINT DETAILS (1)

SHEET NO.
 L-9

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PANEL "A" SCHEDULE

Panel ID: Proposed Load Center "A"
 Location: STA. 212+60, RT., BL SURVEY BUCKINGHAM RD
 Mounting: Surface

Main Breaker: 100 A
 Voltage: 480
 Single Phase, 3-wire

	CIRCUIT DESCRIPTION	LOAD (KVA)	BREAKER	POLE	BUS	POLE	BREAKER	LOAD (KVA)	CIRCUIT DESCRIPTION	
1	A-1	3.672	40	2	A	2	40	2.448	A-2	2
3					B					4
5					A					6
7					B					8
9					A					10
11					B					12
13					A					14
15					B					16
17					A					18
19					B					20
21					A					22
23					B					24

NOTES

- SAFETY SWITCH - 100 AMP F/A 100 AMP

TOTAL DEMAND 6.120 KVA
 TOTAL DEMAND AMPS 12.75 AMPS

NO. OF LIGHT POLES 20

REVISIONS				MICHAEL J. NOESEN, P.E. P.E. LICENSE NUMBER 42255 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637		BUCKINGHAM RD & GUNNERY RD ROUNDABOUT	FINANCIAL PROJECT ID 442123-1-58-01	LIGHT POLE AND SERVICE POINT DETAILS (2)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION						L-10