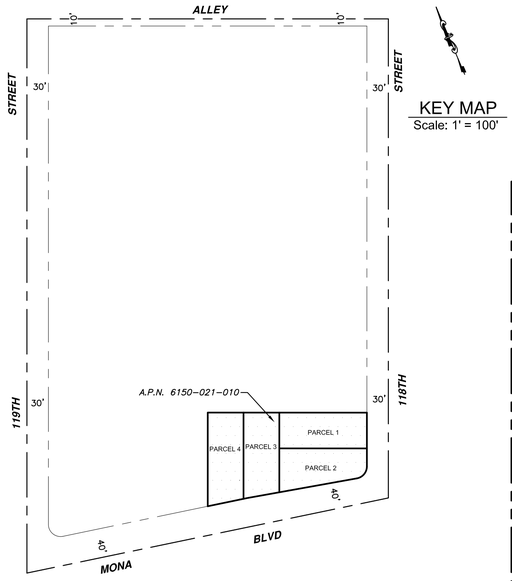
COUNTY OF LOS ANGELES
PUBLIC WORKS
STREET LIGHTING LAYOUT MAP

NORTH

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.



KEY MAP
Scale: 1' = 100'

GENERAL NOTES FOR STREET LIGHTING LAYOUT

1.– This street lighting layout expires two years after the latest date of approval.

2.– The location of a streetlight may only be adjusted in the field up to 10 feet, only to avoid an obstruction such as a catch basin, driveway, etc. Any deviation exceeding 10 feet must have the approval of the Los Angeles County Public Works, Street Lighting Section. If such approval is not obtained, the lights proposed by this plan will not be accepted by county lighting maintenance district.

3.– A revised street lighting layout shall be submitted for any changes in the map, such as street alignment, lot or parcel sizes, boundaries, etc.

4.– The streetlight poles shall be ameron type 1–C1 series or agency approved.

5.– All streetlight wiring shall be underground.

6.– On streets where the sidewalk and curb are greater than 6 ½ feet in width, the mast arms and brackets shall be perpendicular to the curb face to the center of the pole. The streetlight electrolier standards shall be placed 24" from the curb face to the center of the pole. Use a 4–foot long mast arm for 100 watt streetlight and 6–foot long mast arm for other wattage, unless otherwise specified.

7.– On streets where the sidewalk and curb are less than or equal to 6 ½ feet in width, the streetlight electrolier standards and pull boxes shall be placed outside of the sidewalk areas unless otherwise specified . Use an 8–foot long mast arm for all wattage, unless otherwise specified.

8.– All lights shown on this layout shall be energized prior to acceptance of the lighting system to a county lighting district.

9.– Existing street lighting systems shall remain in operation during any modification. Any proposed temporary street lighting system must be approved by the Los Angeles County Public Works.

10.– Five–foot clearance to be maintained from fire hydrant.

11.– Four–foot clearance to be maintained from top of slope at commercial driveway, and 2 foot clearance from residential driveway.

12.– Luminaire shall be light–emitting diode (LED)

13.– Twenty (20) foot clearance to be maintaned from tree canopy.

14.– All existing and planned trees to be shown on the street lighting plan

LEGEND

( ) EXISTING STREET LIGHTS TYPE OF POLE, SIZE OF LAMP AND POLE NUMBER AS INDICATED.

PROJECT BOUNDARY.

(A) PROPOSED TREE PER SEPARTE PLAN

EXISITING STREET LIGHT CONFIGURATION MEETS LOS ANGELES COUNTY STANDARDS, NO MODIFICATIONS REQUIRED.

NO.	*REVISIONS*	*REVISED BY*	*APPROVED BY*	*DATE*

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

APPROVAL

BY _____ *R.C.E. NO.* _____ *DATE* _____

_____ _____ _____

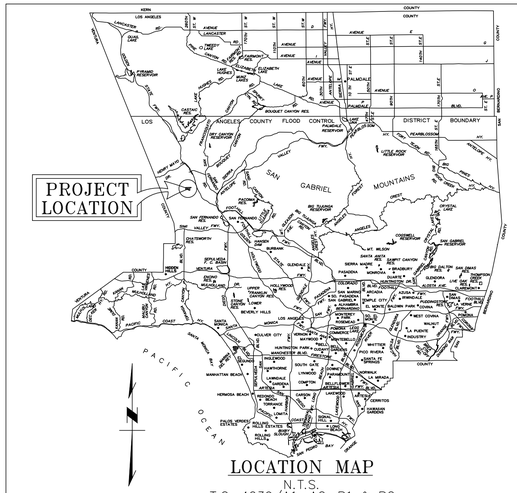
STREET LIGHTING PLAN

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

2354 E 118TH SREET
LOS ANGELES, CA 90059
A.P.N. 6150-021-010

SCALE: 1"=20' | DATE: 10–27–21 | SHT 1 OF 1 SHTS

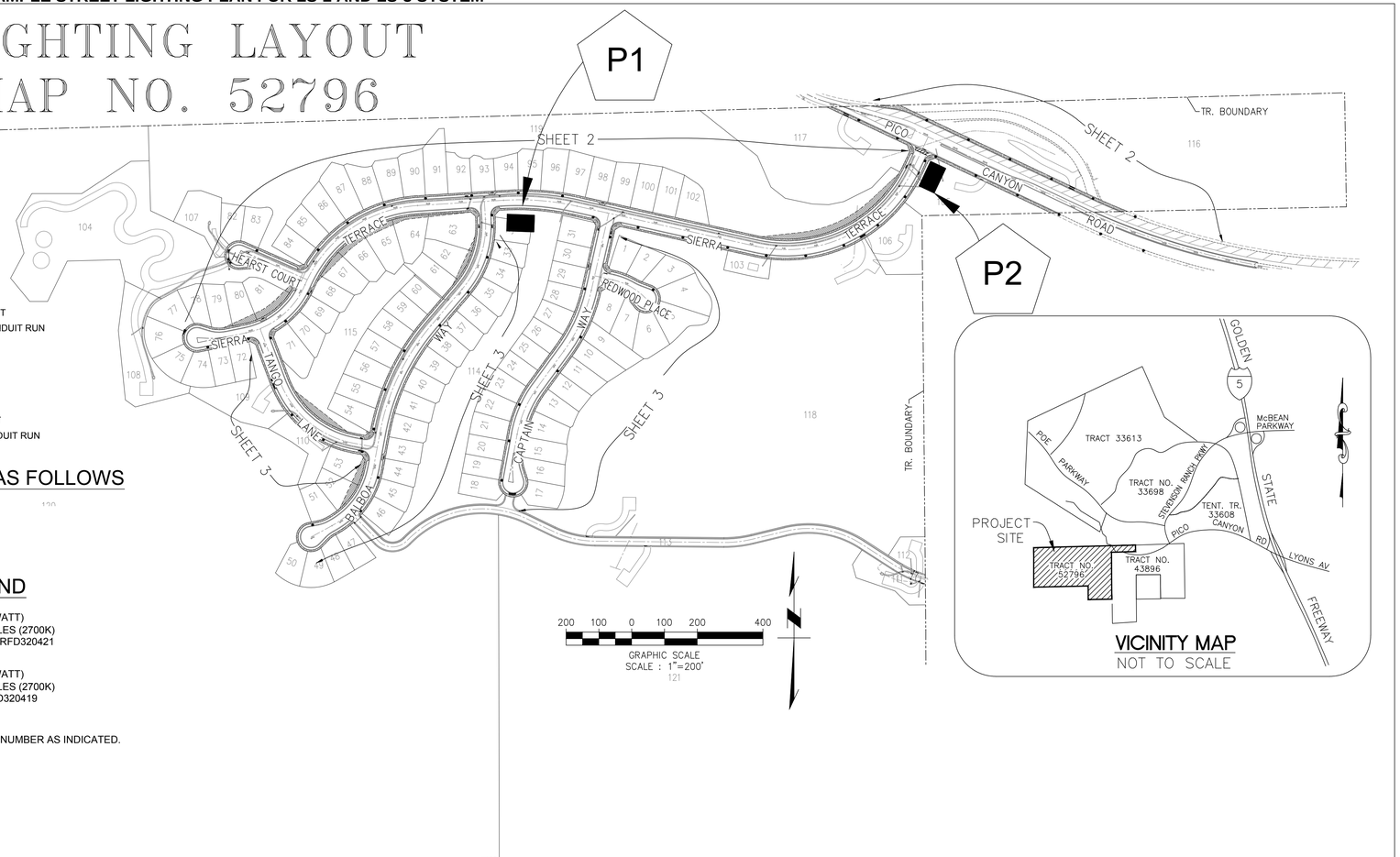
STREET LIGHTING LAYOUT
TRACT MAP NO. 52796



LOCATION MAP
N.T.S.
T.G. 4639/A1, A2, B1 & B2

GENERAL NOTES FOR LS-2 AND LS-3 STREET LIGHTING PLANS

1. THIS STREET LIGHTING PLAN EXPIRES TWO YEARS AFTER THE LATEST DATE OF APPROVAL.
2. THE LOCATION OF A STREETLIGHT MAY ONLY BE ADJUSTED IN THE FIELD UP TO TEN (10) FEET, ONLY TO AVOID AN OBSTRUCTION SUCH AS A CATCH BASIN, DRIVEWAY, ETC. ANY DEVIATION EXCEEDING TEN (10) FEET MUST HAVE THE APPROVAL OF THE LOS ANGELES COUNTY PUBLIC WORKS, STREET LIGHTING SECTION. IF SUCH APPROVAL IS NOT OBTAINED, THE STREETLIGHTS PROPOSED BY THIS PLAN WILL NOT BE ACCEPTED BY COUNTY LIGHTING MAINTENANCE DISTRICT.
3. REVISED STREET LIGHTING PLANS SHALL BE SUBMITTED FOR ANY CHANGES IN THE MAP, SUCH AS STREET ALIGNMENT, LOT OR PARCEL SIZES, BOUNDARIES, ETC.
4. THE STREETLIGHT POLE SHALL BE CONCRETE AMERON TYPE 1-C1 SERIES OCTAGONAL POLE, COLOR MIX 01 WITH ANTI-GRAFFITI COATING OR AGENCY APPROVED EQUAL. FOR DETAILS, SEE ATTACHMENT I, EXHIBIT L-1.
5. CONCRETE POLES SHALL BE ANCHORED BY 1"X 36"X 4"STEEL ANCHORED BOLTS AND FOUNDATION CAP. FOR DETAILS, SEE ATTACHMENT I, EXHIBIT L-1.
6. LUMINAIRE SHALL BE LIGHT-EMITTING DIODE (LED).
7. LUMINAIRE SHALL BE PROVIDED WITH ANSI C136.41 RECEPTACLE WITH SEVEN CONTACTS, THREE TWIST LOCK CONTACTS, A SHORTING CAP, AND A 0-10V DIMMABLE DRIVER.
8. ALL STREETLIGHT WIRING SHALL BE UNDERGROUND.
9. ON STREETS WHERE THE SIDEWALK AND CURB ARE GREATER THAN SIX AND ONE HALF (6 ½) FEET IN WIDTH, THE MAST ARMS AND BRACKETS SHALL BE PERPENDICULAR TO THE CURB FACE. THE STREETLIGHT ELECTROLIERS SHALL BE PLACED TWENTY-FOUR (24) INCHES FROM THE CURB FACE TO THE CENTER OF THE POLE. USE A FOUR (4) FOOT LONG MAST ARM FOR 45-WATT LED STREETLIGHT AND SIX (6) FOOT LONG MAST ARM FOR ALL OTHER WATTAGE, UNLESS OTHERWISE SPECIFIED.
10. ON STREETS WHERE THE SIDEWALK AND CURB ARE LESS THAN OR EQUAL TO SIX AND ONE HALF (6 ½) FEET IN WIDTH, THE STREETLIGHT ELECTROLIERS AND PULL BOXES SHALL BE PLACED OUTSIDE OF THE SIDEWALK AREA UNLESS OTHERWISE SPECIFIED. USE AN EIGHT (8) FOOT LONG MAST ARM FOR ALL WATTAGE, UNLESS OTHERWISE SPECIFIED.
11. EXISTING STREET LIGHTING SYSTEMS SHALL REMAIN IN OPERATION DURING ANY MODIFICATION. ANY PROPOSED TEMPORARY STREET LIGHTING SYSTEM MUST BE APPROVED BY THE LOS ANGELES COUNTY PUBLIC WORKS.
12. FOR STREETLIGHT RELOCATION, ALL SIGNS ON THE EXISTING STREETLIGHT POLES SHALL BE RELOCATED TO THE NEW STREETLIGHT POLES. ALL SIGN RELOCATION SHALL BE COORDINATED WITH THE INSPECTOR.
13. FIVE (5) FOOT CLEARANCE TO BE MAINTAINED FROM FIRE HYDRANT.
14. FOUR (4) FOOT CLEARANCE TO BE MAINTAINED FROM TOP OF SLOPE AT COMMERCIAL DRIVEWAY, AND TWO (2) FOOT CLEARANCE FROM RESIDENTIAL DRIVEWAY AND CURB RAMPS.
15. ALL WORK SHALL BE IN ACCORDANCE TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, UNLESS OTHERWISE NOTED ON THE PLAN.
16. ALL WORK IN THE PUBLIC RIGHT-OF-WAY SHALL BE PER THE LOS ANGELES COUNTY PUBLIC WORKS' STANDARDS, CODES, AND PERMIT REQUIREMENTS, AND TO THE SATISFACTION OF PUBLIC WORKS.
17. PULL BOXES SHALL BE PLACED ADJACENT TO THE PROPOSED STREETLIGHTS WITH MINIMUM FIVE (5) FEET CLEARANCE FROM THE SIDE OF THE FOUNDATION FOR EACH STREETLIGHT STANDARD TO FACILITATE MAINTENANCE OF THE INDIVIDUAL STREETLIGHT.
18. PULL BOXES LOCATED ADJACENT TO DRIVEWAYS AND ALLEYS SHALL BE INSTALLED AT A MINIMUM DISTANCE OF FIVE (5) FEET FROM THE TOP OF THE DRIVEWAY "X" OR FIVE (5) FEET FROM THE TRAVEL WAY OF THE ALLEY. PULL BOXES SHALL NOT BE INSTALLED IN ANY PART OF A DRIVEWAY, CURB RAMP AREA OR OTHER TRAVELLED WAY.
19. PULL BOXES SHALL BE TYPE 2 WITH POLYMER CONCRETE COVER INSCRIBED "STREET LIGHTING HIGH VOLTAGE". PULL BOXES, COVERS, AND EXTENSION SHALL BE POLYMER CONCRETE MATERIAL, CONCRETE GRAY, SHALL BE ARMORCAST OR AGENCY APPROVED EQUAL .
20. STREETLIGHTS SHALL BE ERECTED SO THAT THE BASE DOOR (HANDHOLD COVER) IS FACING THE DIRECTION OF TRAVEL.
21. LS-3 STREETLIGHT FOUNDATION SHALL BE IN ACCORDANCE WITH DETAIL STANDARD AS SHOWN ON THE PLAN. FOR DETAILS, SEE ATTACHMENT I, EXHIBIT L-3.
22. FOUNDATION CAPS SHALL BE THE SAME COLOR, FINISH, AND MATERIAL AS THE ADJACENT SIDEWALK, AND BE A MINIMUM OF FOUR (4) INCHES THICK. THE FOUR (4) INCHES THICK PCC CAP SHALL BE CONSTRUCTED TO THE BACK OF THE ROADWAY CURB.
23. PROPOSED LS-3 STREETLIGHT FOUNDATIONS, PEDESTALS, PULL BOXES AND OTHER ASSOCIATED LS-3 STREETLIGHT SYSTEM APPURTENANCES SHALL BE INSTALLED WITHIN THE PUBLIC RIGHT-OF-WAY.
24. CONTRACTOR SHALL LOCATE AND PROTECT SUBSTRUCTURE(S) AND SHALL PROVIDE A MINIMUM TWELVE (12) INCH HORIZONTAL CLEARANCE BETWEEN FOUNDATION AND SUBSTRUCTURES. IN THE EVENT THAT A TWELVE (12) INCH CLEARANCE CANNOT BE ACHIEVED, THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR RELOCATION OF SUBSTRUCTURES AT NO COST TO LOS ANGELES COUNTY PUBLIC WORKS.
25. STREETLIGHTS SHALL BE CONSTRUCTED PER THE LOS ANGELES COUNTY PUBLIC WORKS APPROVED PLAN. STREETLIGHTS NOT CONSTRUCTED ACCORDING TO THE APPROVED PLAN SHALL BE REMOVED AND RELOCATED AT NO COST TO LOS ANGELES COUNTY PUBLIC WORKS.
26. THE DEVELOPER AND/OR APPLICANT SHALL COORDINATE WITH SCE FOR THE LOCATION OF THE SERVICE PEDESTAL PRIOR TO THE APPROVAL THE STREET LIGHTING PLAN. VOLTAGES FOR OVERHEAD LINES IN THE VICINITY OF THE STREET LIGHTS MUST BE SHOWN ON THE PLANS.
27. SAFETY CLEARANCE SHALL BE OBTAINED FROM THE AFFECTED UTILITY COMPANY BEFORE DOING ANY WORK IN CLOSE PROXIMITY TO ANY OVERHEAD ELECTRIC LINE. ALL STREETLIGHTS MUST MAINTAIN A 12' MINIMUM CLEARANCE IN ALL DIRECTIONS FROM ANY OVERHEAD HIGH-VOLTAGE (600 VOLTS – 50,000 VOLTS) ELECTRIC POWER LINES.



VICINITY MAP
NOT TO SCALE

MAIN LINE CONDUIT

NO. CONDUIT REQ. → SIZE OF CONDUIT
RUN NO. → LENGTH OF CONDUIT RUN

STREET LIGHT CONDUIT

CIRCUIT NUMBER → P1-5,7
NO. CONDUIT REQ. → SIZE OF CONDUIT
RUN NO. → LENGTH OF CONDUIT RUN

RUN NUMBER CALL-OUTS AS FOLLOWS

(1) – (24) MAIN LINE CONDUIT

(410) – (420) STREET LIGHT CONDUIT

ELECTRICAL DEVICE LEGEND

L ● 20 PROPOSED LED EQUIVALENT FOR (200 WATT) HPSV STREETLIGHTS ON CONCRETE POLES (2700K) ATBM P30 MVOLT R3 4B 27K MP NL P7 JP RFD320421 OR AGENCY APPROVED EQUAL

L ● 10 PROPOSED LED EQUIVALENT FOR (100 WATT) HPSV STREETLIGHTS ON CONCRETE POLES (2700K) ATBX P50 MVOLT R3 27K MP NL P7 JP RFD320419 OR AGENCY APPROVED EQUAL

EXISTING STREETLIGHT. TYPE OF POLE, SIZE OF LAMP AND POLE NUMBER AS INDICATED.

J TYPE 2 UNDERGROUND PULL BOX

P1 ELECTRICAL SERVICE PEDESTAL 120/240. 1Ø, 3W 60 AMPS MAIN

E PROPOSED SCE SERVICE POINT

28. IN THE EVENT OF OVERHEAD LINE CONFLICT WITH STREETLIGHTS, THE CONTRACTOR SHALL MAKE NECESSARY ARRANGEMENTS WITH SCE TO RAISE THEIR OVERHEAD FACILITIES IN ORDER TO PROVIDE FOR THE REQUIRED CLEARANCES WITH EXISTING AND/OR PROPOSED STREETLIGHTS AT NO COST TO LOS ANGELES COUNTY PUBLIC WORKS.
29. CONTRACTOR SHALL REPAIR AT THEIR COST; THE DAMAGE CAUSED TO ANY EXISTING UNDERGROUND UTILITY DURING THE CONSTRUCTION OF STREETLIGHTS.
30. ALL CONDUITS FROM PULL BOX TO STREETLIGHT SHALL BE ONE AND A HALF (1 1/2) INCHES UL APPROVED PVC SCHEDULE 80, UNLESS OTHERWISE SPECIFIED.
31. ALL CONDUITS FROM PULL BOX TO PULL BOX SHALL BE THREE (3) INCHES UL APPROVED PVC SCHEDULE 80, UNLESS OTHERWISE SPECIFIED.
32. ALL CONDUITS FROM SERVICE PEDESTAL TO PULL BOX SHALL BE THREE (3) INCHES UL APPROVED PVC SCHEDULE 80, UNLESS OTHERWISE SPECIFIED.
33. ALL CONDUITS SHALL BE LAID TO A DEPTH OF NOT LESS THAN THIRTY (30) INCHES BELOW THE GUTTER FLOW LINE, UNLESS OTHERWISE SPECIFIED. FOR DETAILS, SEE ATTACHMENT I, EXHIBIT L-4.
34. ALL SPLICES BELOW GRADE SHALL BE WATERTIGHT, TAPED (VINYL OVER RUBBER) AND SCOTCHKOTED.
35. IT WILL BE THE RESPONSIBILITY OF THE DEVELOPER AND/OR APPLICANT TO FURNISH AND CONSTRUCT ALL THE STREETLIGHTS IMPROVEMENTS INCLUDING INSTALLATION OF UNDERGROUND CONDUIT SYSTEM, PULL BOXES, PULL ROPES, STUB-OUTS, CONDUCTORS, FOUNDATIONS, POLES, MAST ARMS, SERVICE PEDESTALS AND CABINETS, STREETLIGHTS, AND ALL OTHER NECESSARY APPURTENANCES IN ACCORDANCE TO LOS ANGELES COUNTY PUBLIC WORKS STANDARDS.
36. SCE OR ITS CONTRACTOR WILL INSTALL NEW TRANSFORMER, RISER, AT THE SCE SERVICE POINT, AND PROVIDE SERVICE CONNECTION. ALL COSTS TO BE PAID BY THE DEVELOPER AND/OR APPLICANT.
37. ALL CONDUIT WORK BETWEEN SCE SERVICE POINT AND THE PROPOSED SERVICE PEDESTAL SHALL CONFORM TO SCE STANDARDS, PUBLISHED IN SCE'S UNDERGROUND STRUCTURES STANDARDS MANUAL (UGS), AVAILABLE AT WWW.SCE.COM AND THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, SECTION 86, UNLESS OTHERWISE NOTED ON THE PLANS.
38. SERVICE PEDESTAL SHALL BE INSTALLED WITH CABINET ACCESS DOOR FACING THE DIRECTION OF TRAVEL.
39. ALL STREETLIGHTS SHOWN ON THIS PLAN SHALL BE ENERGIZED PRIOR TO ACCEPTANCE OF THE LIGHTING SYSTEM TO A COUNTY LIGHTING MAINTENANCE DISTRICT. THE DEVELOPER AND/OR APPLICANT SHALL ENSURE THAT ALL REQUIRED ELECTRICAL INSPECTIONS ARE COORDINATED WITH SCE AND THE LOS ANGELES COUNTY PUBLIC WORKS' INSPECTOR PRIOR TO COVERING OR ENERGIZING THE LIGHTING SYSTEM.
40. ALL STREETLIGHT IMPROVEMENTS SHALL BE COMPLETED IN ACCORDANCE TO LOS ANGELES COUNTY PUBLIC WORKS APPROVED STREET LIGHTING PLANS PRIOR TO THE ACCEPTANCE OF THE STREET LIGHTING SYSTEM TO COUNTY LIGHTING MAINTENANCE DISTRICT.
41. PRIOR TO ACCEPTANCE OF THE WORK, THE DEVELOPER AND/OR APPLICANT SHALL SUBMIT ONE COMPLETE SET OF "AS BUILT" PLANS AND ANY PERTINENT DATA AS REQUIRED BY THE ENGINEER SHOWING IN DETAIL ALL CONSTRUCTION CHANGES.
42. THE OPERATION AND MAINTENANCE OF THE STREETLIGHTS ON PRIVATE AND FUTURE ROADWAYS SHALL BE THE RESPONSIBILITY OF THE HOMEOWNER ASSOCIATION/DEVELOPER.
43. ALL COST FOR FURNISHING AND INSTALLING ELECTRICAL WORK SHOWN ON THE ELECTRICAL PLAN FOR WHICH NO SEPARATE ITEMS ARE INCLUDED IN THE BID SHALL BE INCLUDED IN THE LUMP SUM PRICE IN THE BID FOR "ELECTRICAL WORK".
44. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ACCEPTED BY NATIONAL ELECTRICAL CODE (NEC), LOCAL MUNICIPAL CODE AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
45. ALL ELECTRICAL EQUIPMENT SHALL BE LISTED BY UL OR A COUNTY APPROVED THIRD PARTY TESTING FACILITY.
46. ALL EQUIPMENT AND RACEWAYS SPECIFIED AS NEW SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
47. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF THE EQUIPMENT AND WORK INCLUDED. THE INTENTION OF THE DRAWINGS IS TO INDICATE SIZE, CAPACITY, APPROXIMATE LOCATION AND GENERAL RELATIONSHIP BUT NOT THE EXACT DETAIL OR PHYSICAL PLACEMENT.
48. ALL DISTANCES SHALL BE FIELD-VERIFIED BY CONTRACTOR.
49. GENERAL NOTES PERTAIN TO ELECTRICAL WORK DEPICTED ON THIS PLAN ONLY. REFER TO TRAFFIC SIGNAL PLAN FOR OTHER REQUIRED WORK.
50. DESIGNER TO PROVIDE A SERVICE AGREEMENT LETTER FROM SCE INDICATING THE AVAILABLE FAULT CURRENT AT ALL SERVICE LOCATIONS. THE LETTER MUST BEAR THE PLANNER'S SIGNATURE.
51. CONTRACTOR SHALL CALL DIG ALERT TO VERIFY THE LOCATION OF EXISTING UTILITIES IN THE PROJECT AREA PRIOR TO CONDUCTING ANY EXCAVATION.
52. ALL CONDUCTORS FROM PULLBOX TO STREETLIGHT SHALL BE #10 GAUGE WIRE, UNLESS OTHER WISE SPECIFIED.
53. TWO (2) FOOT CLEARANCE FROM TOP OF CURB RAMPS.
54. A MINIMUM OF TWENTY (20) FOOT CLEARANCE FROM CENTER OF TREE OR A MINIMUM OF FIVE (5) FOOT CLEARANCE FROM THE ULTIMATE TREE CANOPY.
55. ALL EXISTING AND PLANNED TREES TO BE SHOWN ON STREET LIGHTING PLAN.
56. ALL STREET LIGHTS SHALL HAVE A DECAL INDICATING THE LAMP WATTAGE ON THE LUMINAIRE DOORS.
57. CONDUCTORS FOR EACH STREETLIGHT SHALL BE PROTECTED BY IN-LINE FUSES INSTALLED IN THE POLE BASE OR THE ADJACENT PULL BOX.

UTILITY PLANNER CONTACT:

CARMEN McNEIL
28460 AVENUE STANFORD
VALENCIA, CA 91355
661.607.6544
Carmen.McNeil@sce.com

LOS ANGELES COUNTY PUBLIC WORKS
APPROVAL FOR INSTALLATION
BY DATE 3-23-2023

INDEX TO PROJECT PLANS

SHEET NUMBER	DESCRIPTION
1	TITLE SHEET
2	PLAN SHEET
3	PLAN SHEET
4	PANEL SCHEDULES AND DETAILS
5	CIRCUITING DIAGRAMS
6	STANDARDS

ILLUMINATION DESIGN GUIDELINES FOR LS-2 AND LS-3 STREETLIGHTS

LED EQUIVALENT FOR (100 WATT) HPSV STREETLIGHTS, THE POLE SPACING IS BASED ON 0.4 FOOTCANDLES, FOR "LOCAL RESIDENTIAL" STREETS. THE LUMINAIRE SHALL HAVE A TWENTY FIVE (25) FOOT MOUNTING HEIGHT, SHALL BE (ANSI-IES) MEDIUM, TYPE II OR TYPE III.

LED EQUIVALENT FOR (200 WATT) HPSV STREETLIGHTS, THE POLE SPACING IS BASED ON 1.4 FOOTCANDLES, FOR "MAJOR INTERMEDIATE" STREETS. THE LUMINAIRE SHALL HAVE A THIRTY (30) FOOT MOUNTING HEIGHT, SHALL BE (ANSI-IES) MEDIUM, TYPE II OR TYPE III.

X9-002

LS-2 NOTE: COUNTY-OWNED & MAINTAINED STREETLIGHTS

CLMD 1687

NO.	REVISION	REVISED BY	APPROVED BY	DATE

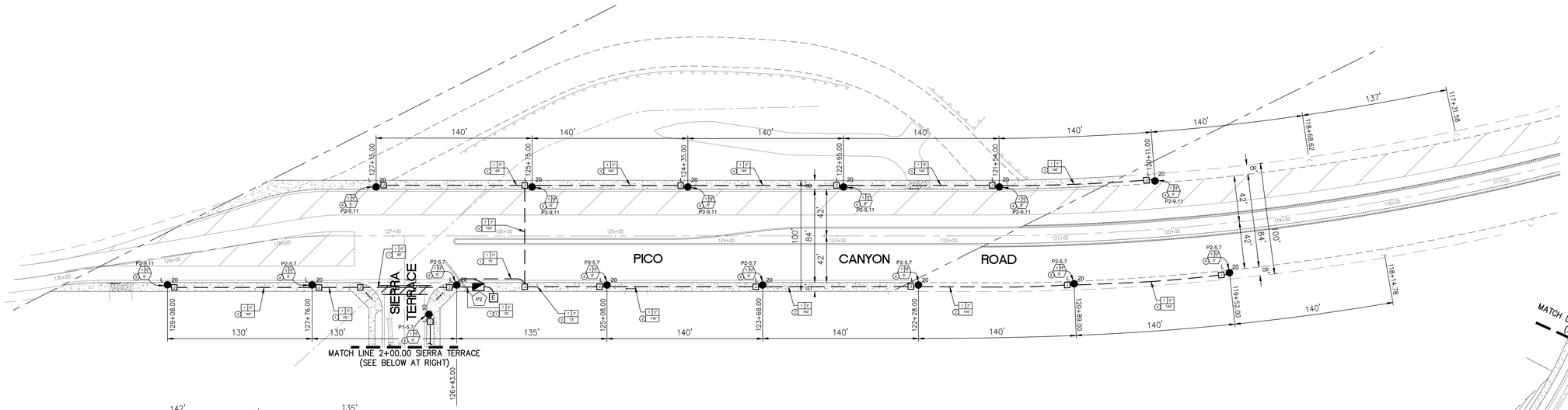
PROJECT ENGINEER DATE

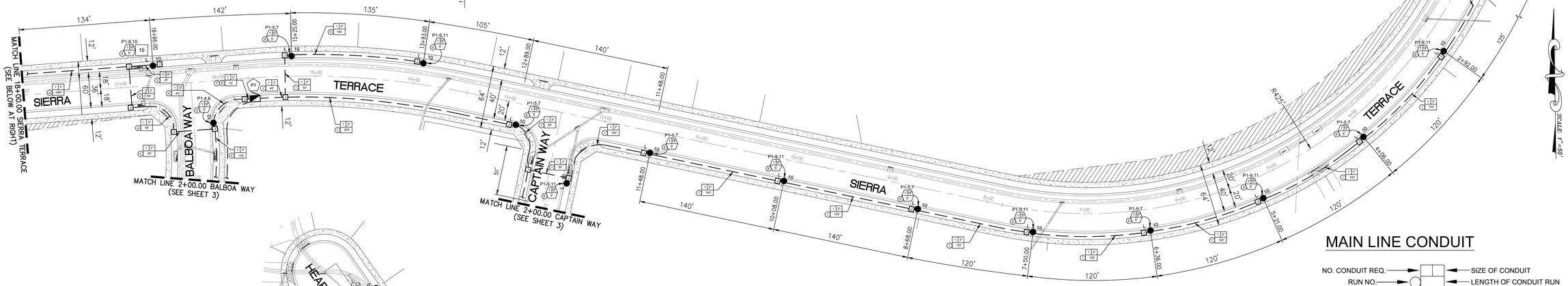
TITLE SHEET
STREET LIGHTING PLANS
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

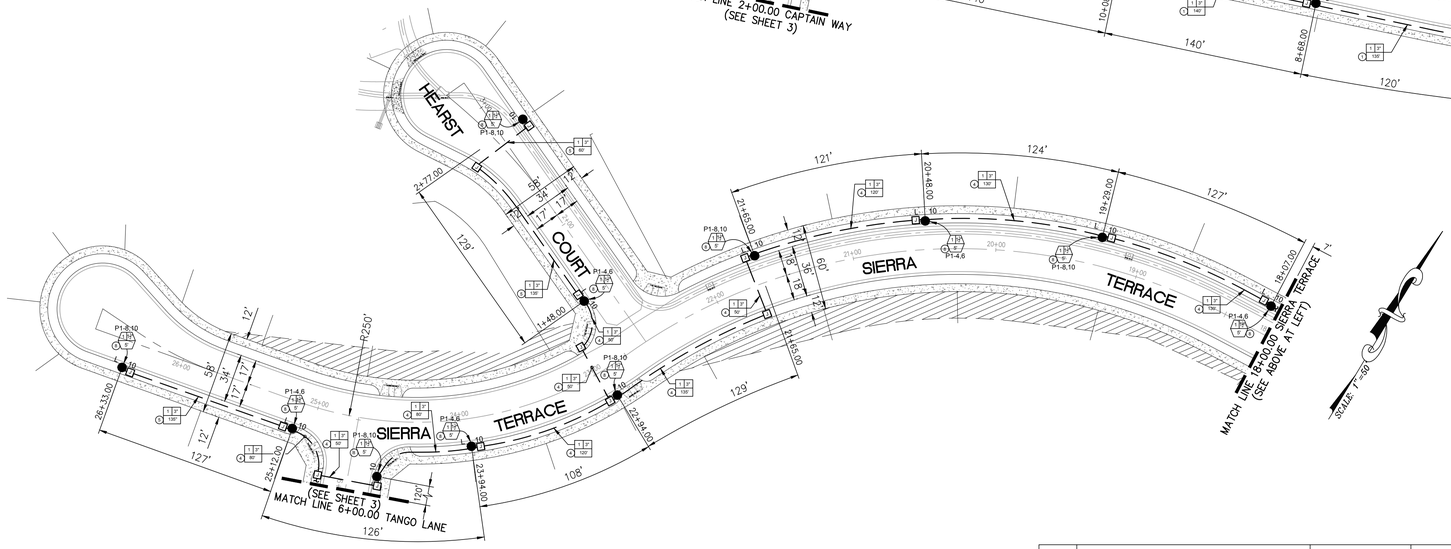
TM No. 52796 | DWG SHT-01 | SHEET 1 OF 6

PLOT DATE: 1-3-2023

Z:\X9-002 Tract 52796 Los Angeles St Ltg\ES.dwg







MAIN LINE CONDUIT

NO. CONDUIT REQ. — SIZE OF CONDUIT
RUN NO. — LENGTH OF CONDUIT RUN

STREET LIGHT CONDUIT

NO. CONDUIT REQ. — SIZE OF CONDUIT
RUN NO. — LENGTH OF CONDUIT RUN

RUN NUMBER CALL-OUTS

(1) – (24) MAIN LINE CONDUIT

(410) – (420) STREET LIGHT CONDUIT

GRAPHIC SCALE: 1"=50'
0' 50' 100'

X9-002

CLMD 1687

PLAN SHEET
STREET LIGHTING PLANS
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

NO.	REVISION	REVISED BY	APPROVED BY	DATE

LOS ANGELES COUNTY PUBLIC WORKS
APPROVAL FOR INSTALLATION
BY DATE 3-23-2023

PROJECT ENGINEER DATE

TM No. 52796 | DWG SHT-02 | SHEET 2 OF 6

PLOT DATE: 1-3-2023

Z:\X9-002 Tract 52796 Los Angeles St Ltg\ES.dwg

MAIN LINE CONDUIT

NO. CONDUIT REQ. → SIZE OF CONDUIT
RUN NO. → LENGTH OF CONDUIT RUN

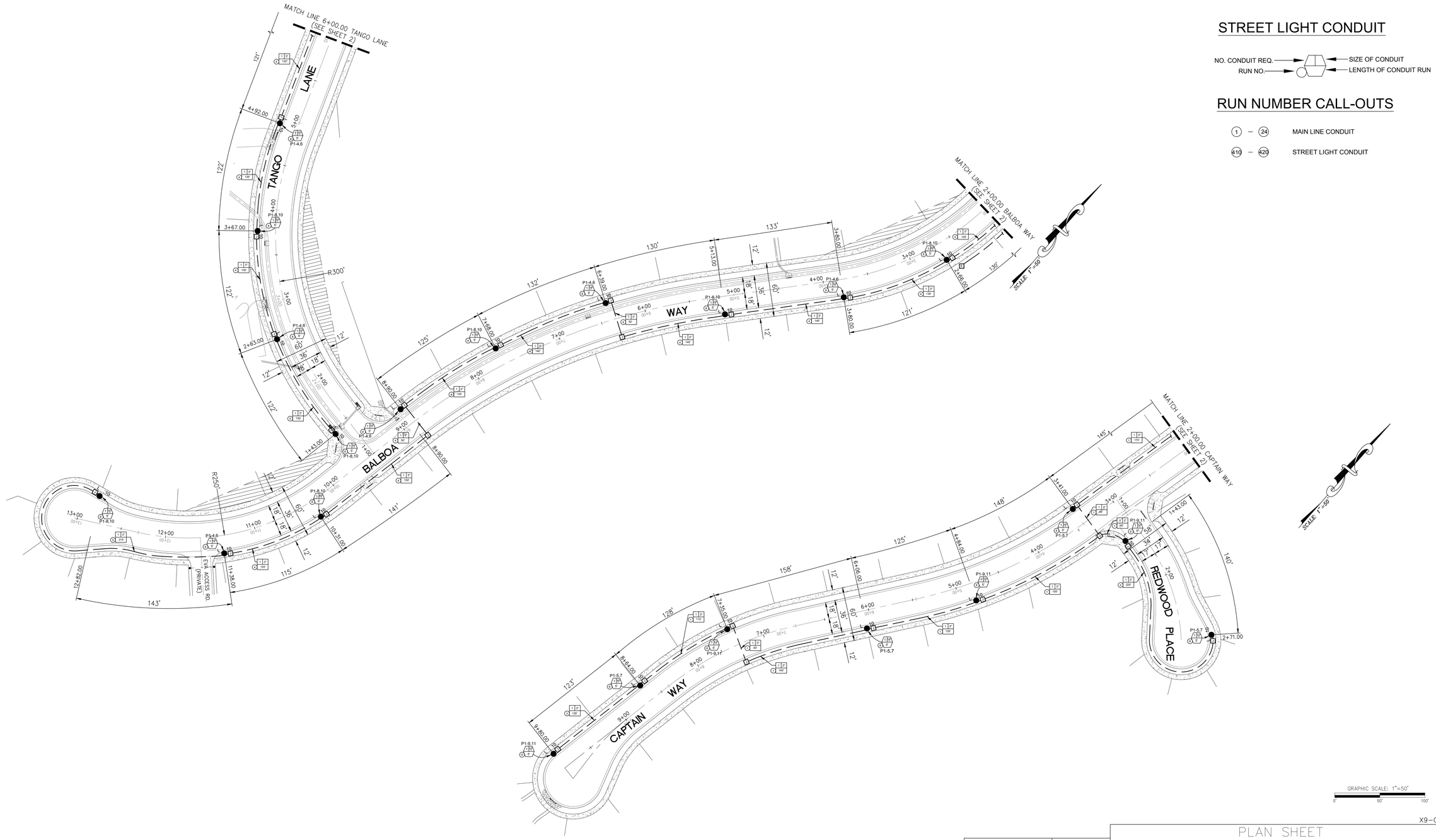
STREET LIGHT CONDUIT

NO. CONDUIT REQ. → SIZE OF CONDUIT
RUN NO. → LENGTH OF CONDUIT RUN

RUN NUMBER CALL-OUTS

(1) – (24) MAIN LINE CONDUIT

(410) – (420) STREET LIGHT CONDUIT



X9-002

						CLMD 1687	PLAN SHEET
							STREET LIGHTING PLANS
NO.	REVISION	REVISED BY	APPROVED BY	DATE			COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

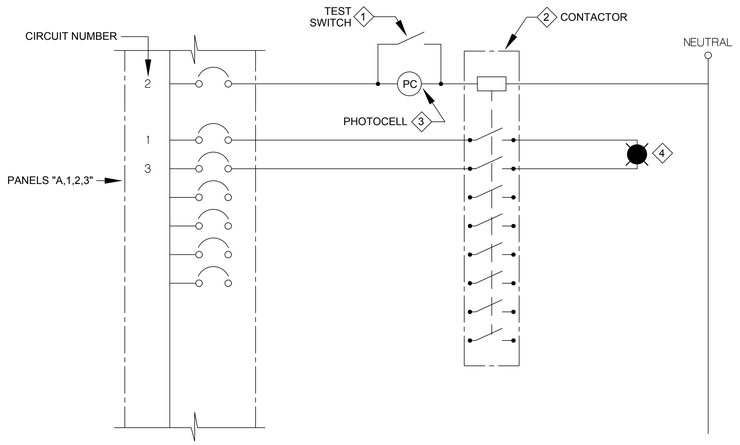
LOS ANGELES COUNTY PUBLIC WORKS
APPROVAL FOR INSTALLATION
BY _____ DATE 3-23-2023

PROJECT ENGINEER _____ DATE _____

TM No. 52796 | DWG SHT-03 | SHEET 3 OF 6

Z:\X9-002 Tract 52796 Los Angeles St Ltg\ES.dwg

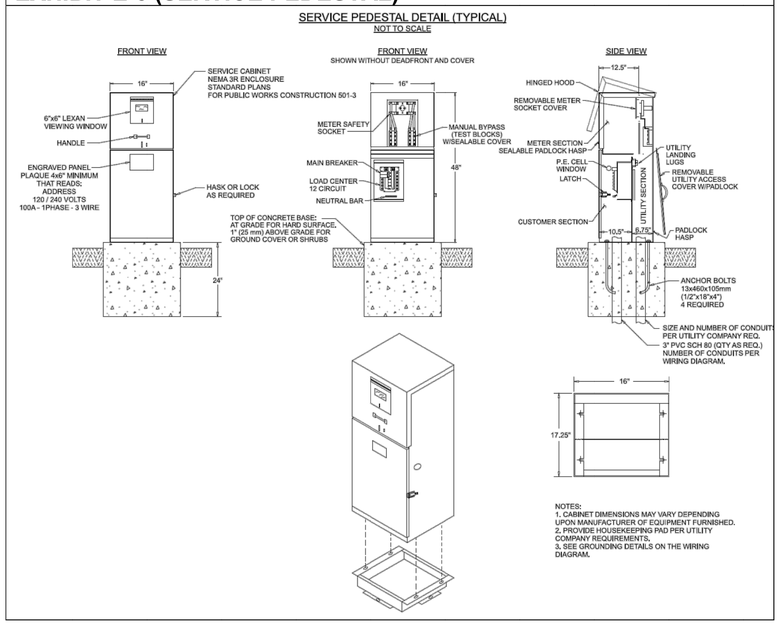
PLOT DATE: 1-3-2023



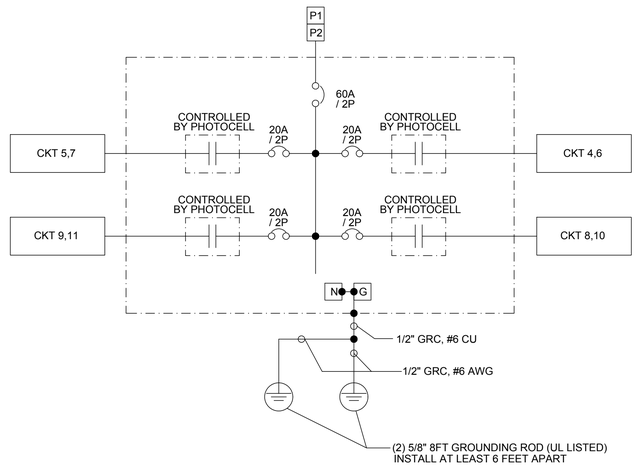
1. LIGHTING TEST SWITCH TO BYPASS PHOTOCELL. SWITCH ADJACENT TO CONTACTOR
2. 8-POLE LIGHTING CONTACTOR, 20A (MIN), 120V COIL IN PEDESTAL ENCLOSURE SQUARE-D# 8903-LH80-V02 OR EQUAL
3. PHOTOCELL
4. OUTDOOR LIGHTING ON AND OFF BY TIMECLOCK (DUSK - DAWN)

CONTROL WIRING SCHEMATIC | *4*

EXHIBIT E-3 (SERVICE PEDESTAL)



ELECTRICAL PEDESTALS DETAIL | *3*

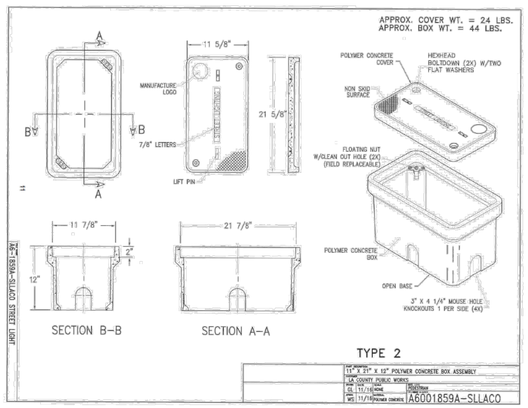


ELECTRICAL PEDESTALS SINGLE LINE DIAGRAM | *1*

ATTACHMENT I

EXHIBIT L-2

Pull Box Specifications



28

PANEL SCHEDULE - P1

MOUNTING: FREESTANDING	VOLTAGE: 120/240	BUS RATING: 100A
TYPE: SERVICE PEDESTAL	PHASE: 1	AIC: 42 KAIC FULLY RATED
ENCLOSURE : NEMA 3R	WIRES: 3	DISTRIBUTION: 16/16
LOCATION: CORNER OF BALBOA WAY AND SIERRA TERRACE	MAIN: 60A/2P	

CKT	DESCRIPTION	TRIP	NOTE	A	B	DESCRIPTION	NOTE	TRIP	CKT
1	MAIN CB	60A/2P		- -		CONTROL WIRE	1	20	2
3	240V.				- 600	STREET LIGHTING	1	20A/2P	4
5	STREET LIGHTING	20A/2P	1	550 600		240V.			6
7	240V.				550 700	STREET LIGHTING	1	20A/2P	8
9	STREET LIGHTING	20A/2P	1	500 700		240V.			10
11	240V.				500 0				12
	VOLTAMPS PER LINE:			2350	2350				
	SUBTOTAL KVA:			4.70	4.70	KVA @ 125% (LCL)			
	TOTAL MINIMUM FEEDER SIZE (AMPS):			24.48	5.88	KVA (TOTAL FEEDER)			

NOTES:
1 - REFER TO DETAIL 4 OF THIS SHEET FOR "OUTDOOR LIGHTING CONTROL SCHEMATIC"

P1 LOAD SUMMARY	
LOAD	4700 WATTS
25%	1175 WATTS
TOTAL LOAD	5875 WATTS
	24.48 AMPS

PANEL SCHEDULE - P2

MOUNTING: FREESTANDING	VOLTAGE: 120/240	BUS RATING: 100A
TYPE: SERVICE PEDESTAL	PHASE: 1	AIC: 42 KAIC FULLY RATED
ENCLOSURE : NEMA 3R	WIRES: 3	DISTRIBUTION: 16/16
LOCATION: CORNER OF PICO CANYON ROAD & SIERRA TERRACE	MAIN: 60A/2P	

CKT	DESCRIPTION	TRIP	NOTE	A	B	DESCRIPTION	NOTE	TRIP	CKT
1	MAIN CB	60A/2P		- -		CONTROL WIRE	1	20	2
3	240V.				- 0				4
5	STREET LIGHTING	20A/2P	1	700 0					6
7	240V.				700 0				8
9	STREET LIGHTING	20A/2P	1	700 0					10
11	240V.				700 0				12
	VOLTAMPS PER LINE:			1400	1400				
	SUBTOTAL KVA:			2.80	2.80	KVA @ 125% (LCL)			
	TOTAL MINIMUM FEEDER SIZE (AMPS):			14.58	3.50	KVA (TOTAL FEEDER)			

NOTES:
1 - REFER TO DETAIL 4 OF THIS SHEET FOR "OUTDOOR LIGHTING CONTROL SCHEMATIC"

P2 LOAD SUMMARY	
LOAD	2800 WATTS
25%	700 WATTS
TOTAL LOAD	3500 WATTS
	14.58 AMPS

X9-002

CLMD 1687

PANEL SCHEDULES AND DETAILS
STREET LIGHTING PLANS
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

NO.	REVISION	REVISED BY	APPROVED BY	DATE

REVIEWED BY _____ DATE 02/09/2023

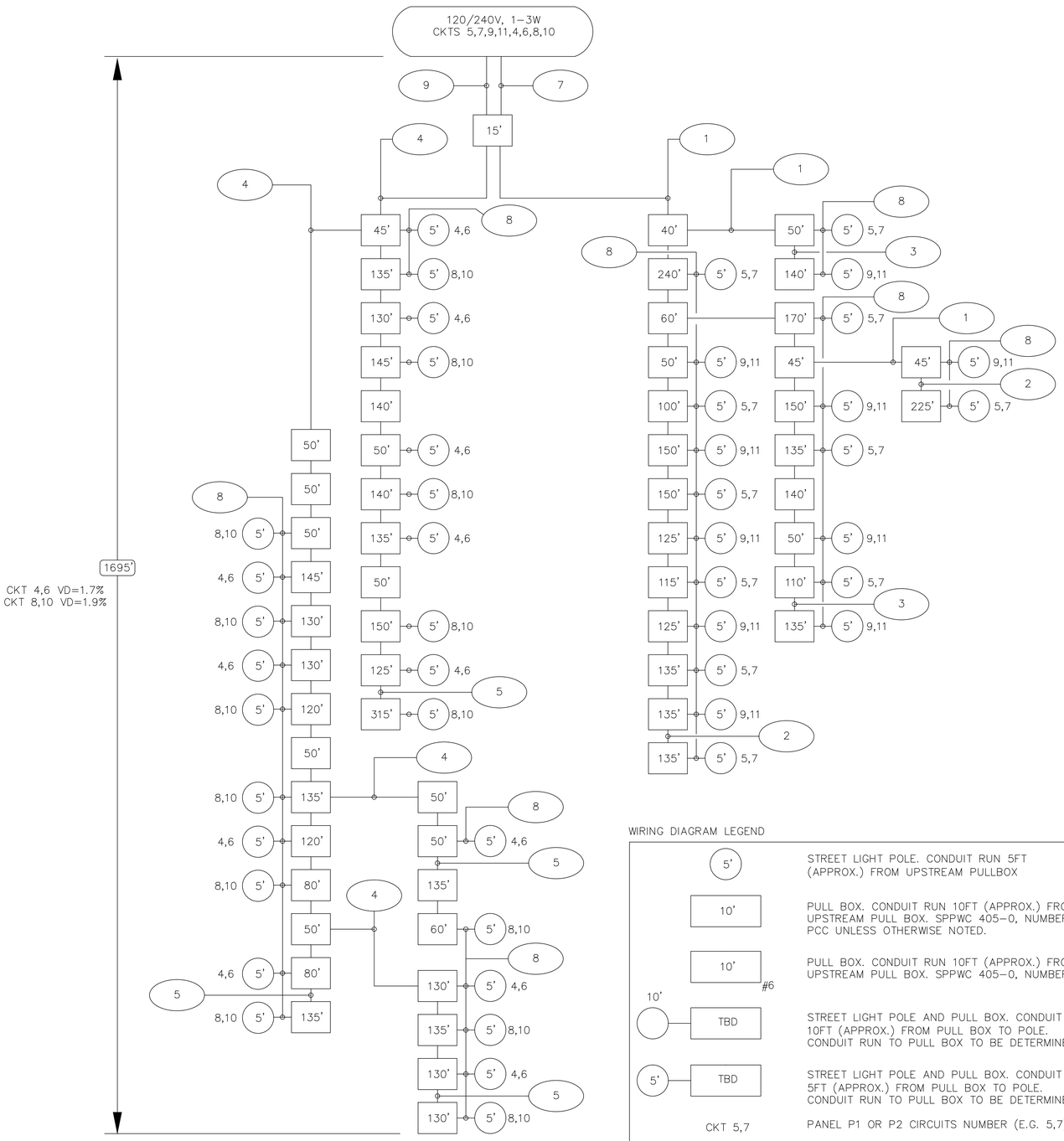
PROJECT ENGINEER DATE

TM No. 52796 | DWG SHT-04 | SHEET 4 OF 6

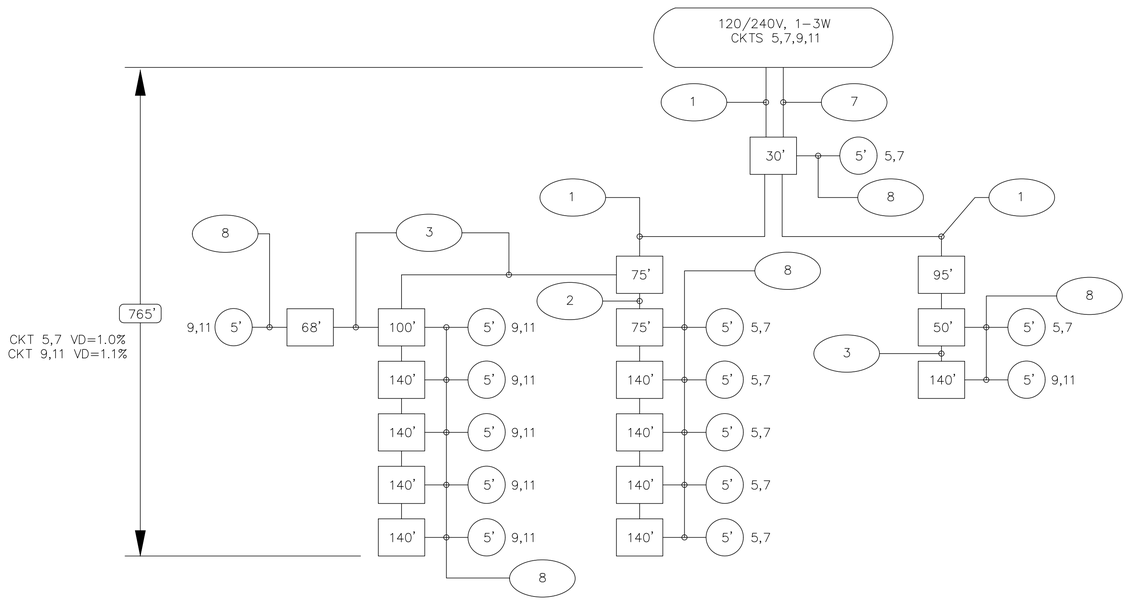
PLOT DATE: 1-3-2023

Z:\X9-002 Tract 52796 Los Angeles St Ltg\ES.dwg

WIRING DIAGRAM – P1



WIRING DIAGRAM – P2



RACEWAY SCHEDULE

RACEWAY	DESCRIPTION	CONDUCTOR
1	3" PVC SCH 80	2 #8 AWG (CKT 5,7) 2 #8 AWG (CKT 9,11) 1 #8 AWG (EGC)
2	3" PVC SCH 80	2 #8 AWG (CKT 5,7) 1 #8 AWG (EGC)
3	3" PVC SCH 80	2 #8 AWG (CKT 9,11) 1 #8 AWG (EGC)
4	3" PVC SCH 80	2 #8 AWG (CKT 4,6) 2 #8 AWG (CKT 8,10) 1 #8 AWG (EGC)
5	3" PVC SCH 80	2 #8 AWG (CKT 8,10) 1 #8 AWG (EGC)
6	3" PVC SCH 80	2 #8 AWG (CKT 4,6) 1 #8 AWG (EGC)
7	3" PVC SCH 80 (SPARE)	WITH A PULL TAPE (MINIMUM 3/8–INCH DIAMETER)
8	1 1/2" PVC SCH 80	2 #10 AWG 1 #10 AWG (EGC)
9	3" PVC SCH 80	2 #8 AWG (CKT 5,7) 2 #8 AWG (CKT 9,11) 2 #8 AWG (CKT 4,6) 2 #8 AWG (CKT 8,10) 1 #8 AWG (EGC)

ABBREVIATIONS

GRC – GALVANIZED RIGID METAL CONDUIT
CU – COPPER
SPPWC – STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
UG – UNDERGROUND
(N) – NEW
(E) – EXISTING
CKT – CIRCUIT

WIRING DIAGRAM LEGEND

5'	STREET LIGHT POLE. CONDUIT RUN 5FT (APPROX.) FROM UPSTREAM PULLBOX
10'	PULL BOX. CONDUIT RUN 10FT (APPROX.) FROM UPSTREAM PULL BOX. SPPWC 405–0, NUMBER 5 PCC UNLESS OTHERWISE NOTED.
10' #6	PULL BOX. CONDUIT RUN 10FT (APPROX.) FROM UPSTREAM PULL BOX. SPPWC 405–0, NUMBER 6.
10' TBD	STREET LIGHT POLE AND PULL BOX. CONDUIT RUN 10FT (APPROX.) FROM PULL BOX TO POLE. CONDUIT RUN TO PULL BOX TO BE DETERMINED.
5' TBD	STREET LIGHT POLE AND PULL BOX. CONDUIT RUN 5FT (APPROX.) FROM PULL BOX TO POLE. CONDUIT RUN TO PULL BOX TO BE DETERMINED.
CKT 5,7	PANEL P1 OR P2 CIRCUITS NUMBER (E.G. 5,7)
VD = TBD%	APPROXIMATE VOLTAGE DROP IN PERCENT

BILL OF MATERIALS

QTY.	DESCRIPTION
2	100A, 120/240V–1P–3W SERVICE PEDESTAL, NEMA 3R, 60A MAIN SERVICE BREAKER WITH 42KAIC SCCR. PEDESTAL SHALL BE UL LISTED AND MEET EUSERC REQUIREMENTS. DISTRIBUTION SECTION PER PANEL SCHEDULE; PROVIDE WITH PHOTOCELL, AND LIGHTING CONTACTOR RATED FOR 20A. PADLOCK HASP PROVISION. MYER'S CATALOG MEUG16 OR AGENCY APPROVED EQUAL.
76	TYPE 2 POLYMER (11"X21"X12") UNDERGROUND PULL BOX. PROVIDE COVER WITH "STREET LIGHTING" IDENTIFICATION.
14	PROPOSED LED (200 WATT) FOR HPSV STREETLIGHTS ON CONCRETE POLES (2700K) ACUITY LIGHTING ATBM P30 MVOLT R3 4B 27K MP NL P7 JP RFD320421 OR AGENCY APPROVED EQUAL.
47	PROPOSED LED (100 WATT) FOR HPSV STREETLIGHTS ON CONCRETE POLES (2700K) ACUITY LIGHTING ATBX P50 MVOLT R3 27K MP NL P7 JP RFD320419 OR AGENCY APPROVED EQUAL.

NOTES:
1. INSTALL A FUSE HOLDER AND A 15A FUSE IN EACH PULL BOX ADJACENT TO EACH STREET LIGHT POLE. REFER TO SPPWC 408–1 (IN–LINE FUSE HOLDER DETAIL.
2. BONDING JUMPER IN STANDARD SHALL BE INSTALLED PER "GREENBOOK" SECTION 701–13.3.
3. PROVIDE AN IN–LINE REDUCER/SPLICER TO ACCOMMODATE LARGER CONDUCTORS WITH A 20A CIRCUIT BREAKER.

NO.	REVISION	REVISED BY	APPROVED BY	DATE

REVIEWED BY

DATE 02/09/2023

PROJECT ENGINEER DATE

X9–002

CLMD 1687

CIRCUITING DIAGRAMS
STREET LIGHTING PLANS

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

TM No. 52796 | DWG SHT–05 | SHEET 5 OF 6

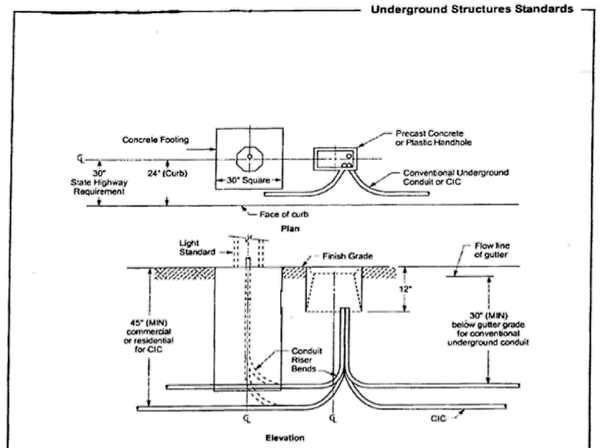
PLOT DATE: 1–3–2023

Z:\X9–002 Tract 52796 Los Angeles St Ltg\ES.dwg

ATTACHMENT I

EXHIBIT L-4

Typical Conduit and Riser Bend Installation for Pull Box through Service to Streetlight Standards



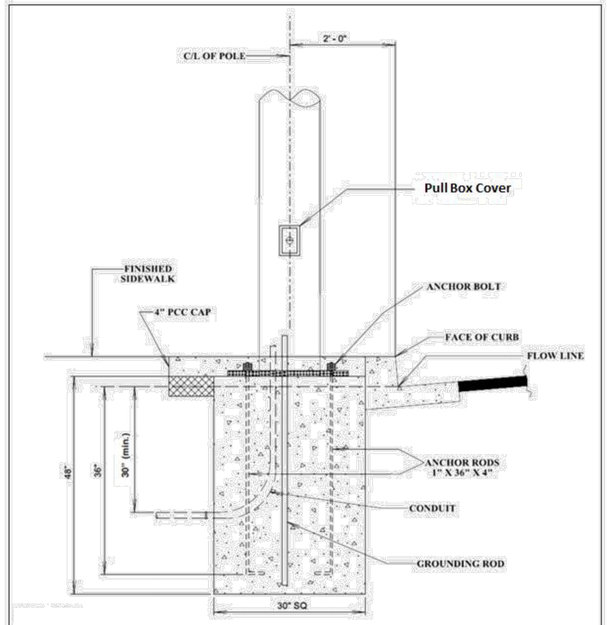
Notes:

1. No encasement required unless otherwise specified.
2. For riser bends, the minimum radius permitted will be 24 inches; for horizontal bends, a minimum radius of 36 inches.
3. A pull rope or pull tape will be installed in each empty conduit.
4. Five-foot clearance to be maintained from fire hydrant.
5. Four-foot clearance to be maintained form top of slope of commercial driveway and two-foot clearance from residential driveway.
6. See Attachment I, Exhibit L-3 for foundation details.

ATTACHMENT I

EXHIBIT L-3

LS-2 AND LS-3 Streetlight Foundations

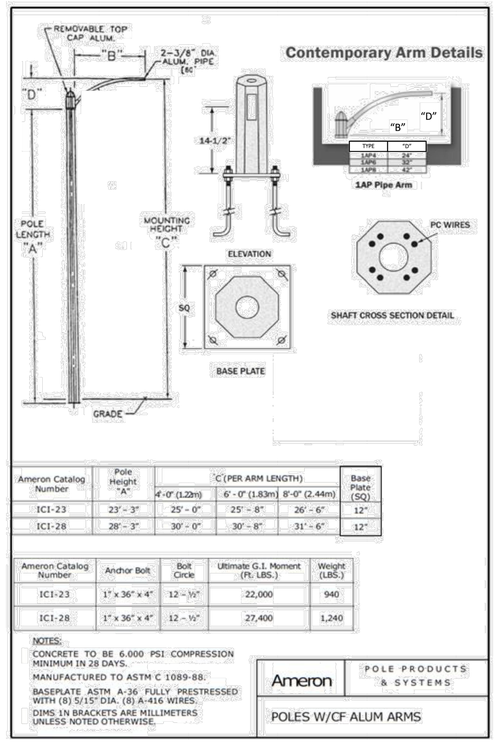


Note:
Construction shall conform to these requirements unless otherwise directed by the county engineer. Foundation bolts shall not be cut off for any reason. Extension couplers shall not be permitted. Anchor bolt dimensions per manufacturers specification.

ATTACHMENT I

EXHIBIT L-1

Ameron Type 1-C1 Streetlight Pole and Mast Arm



Ameron Catalog Number	Pole Height "A"	"C" (PER ARM LENGTH) 4'-0" (1.22m)	6'-0" (1.83m)	8'-0" (2.44m)	Base Plate (SQ)
IC1-23	23' - 3"	25' - 0"	25' - 8"	26' - 6"	12"
IC1-28	28' - 3"	30' - 0"	30' - 8"	31' - 6"	12"

Ameron Catalog Number	Anchor Bolt	Bolt Circle	Ultimate G.I. Moment (Ft. LBS.)	Weight (LBS.)
IC1-23	1" x 36" x 4"	12 - ½"	22,000	940
IC1-28	1" x 36" x 4"	12 - ½"	27,400	1,240

NOTES:
CONCRETE TO BE 6,000 PSI COMPRESSION MINIMUM IN 28 DAYS.
MANUFACTURED TO ASTM C 1089-88.
BASEPLATE ASTM A-36 FULLY PRESTRESSED WITH (8) 5/15" DIA. (8) A-416 WIRES.
DIMS IN BRACKETS ARE MILLIMETERS UNLESS NOTED OTHERWISE.

Ameron | POLE PRODUCTS & SYSTEMS

POLES W/CF ALUM ARMS

REFER TO COUNTY STANDARDS ATTACHMENT I, EXHIBITS L-1, L-2, L-3, L-4.

GENERAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ACCEPTED BY NATIONAL ELECTRICAL CODE (NEC), LOCAL MUNICIPAL CODE AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
2. ALL EQUIPMENT SHALL BE PROPERLY GROUNDED PER NEC ARTICLE 250. EACH PULL BOX SHALL BE PROVIDED WITH 5/8" 8 FT GROUNDING ROD.
3. ALL EQUIPMENT AND RACEWAYS SPECIFIED AS NEW SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
4. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF THE EQUIPMENT AND WORK INCLUDED. THE INTENTION OF THE DRAWINGS IS TO INDICATE SIZE, CAPACITY, APPROXIMATE LOCATION AND GENERAL RELATIONSHIP, BUT NOT THE EXACT DETAIL OR PHYSICAL PLACEMENT.
5. ALL DISTANCES SHALL BE FIELD-VERIFIED BY CONTRACTOR.
6. CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES IN THE PROJECT AREA BY CONDUCTING POTHOLING METHOD PRIOR TO ANY EXCAVATION WORK.
7. ALL ELECTRICAL EQUIPMENT SHALL BE LISTED BY UL OR A COUNTY APPROVED THIRD PARTY TESTING FACILITY.

ELECTRICAL UTILITY NOTES:

1. CONTACT S.C.E. (SOUTHERN CALIFORNIA EDISON) PLANNING OFFICE PRIOR TO STARTING CONSTRUCTION.
2. AVAILABLE FAULT CURRENT BASED ON THE SHORT CIRCUIT CURRENT VALUE SPECIFIED ON FAULT DUTY LETTER.
3. CONTRACTOR SHALL INSTALL UG CONDUITS FROM EXISTING S.C.E. POWER POLE TO NEW PAD-MOUNTED SERVICE PEDESTAL PER S.C.E. REQUIREMENTS. ALL S.C.E. UNDERGROUND CONDUITS SHALL HAVE 30" MINIMUM COVER AND BENDING RADIUS NOT LESS THAN 12.5 FT UNLESS SPECIFIED OTHERWISE BY S.C.E.
4. CONTRACTOR SHALL FURNISH AND INSTALL PAD FOR NEW SERVICE PEDESTAL PER S.C.E. REQUIREMENTS.

DUCT INSTALLATION NOTES:

1. SLOPE: PITCH DUCTS A MINIMUM SLOPE OF 1:300 DOWN TOWARD HANDHOLES AND AWAY FROM BUILDINGS AND EQUIPMENT. SLOPE DUCTS FROM A HIGH POINT IN RUNS BETWEEN TWO HANDHOLES TO DRAIN IN BOTH DIRECTIONS.
2. SEALING: PROVIDE TEMPORARY CLOSURE AT TERMINATIONS OF DUCTS THAT HAVE CABLES PULLED. SEAL SPARE DUCTS AT TERMINATIONS. USE SEALING COMPOUND AND PLUGS TO WITHSTAND AT LEAST 15-PSIG (1.03-MPa) HYDROSTATIC PRESSURE.
3. PULLING CORD: INSTALL 100-lbf-(445-N-) TEST NYLON CORD IN DUCTS, INCLUDING SPARES.
4. COVER: DUCT SHALL BE INSTALLED WITH MINIMUM 30" COVER UNLESS OTHERWISE NOTED.
5. MATERIAL AND INSTALLATION OF ELECTRICAL SERVICE PEDESTAL AND CONDUITS FOR SERVICE CONDUCTORS SHALL MEET S.C.E. REQUIREMENTS.
6. PROVIDE 12" MINIMUM DISTANCE FROM ANY UTILITY LINE.

PULL BOX CONSTRUCTION NOTES:

1. BOXES AND COVERS SHALL BE MANUFACTURED USING POLYMER CONCRETE MATERIAL. POLYMER MATERIAL SHALL CONSIST OF CALCAREOUS AND SILICEOUS STONE, GLASS FIBER AND THERMO SET POLYESTER RESIN. POLYMER CONCRETE COVERS SHALL BE MANUFACTURED OF POLYMER CONCRETE MATERIAL USING MATCHED DIE MOLDS TO PRODUCE A UNIFORMLY CONTROLLED DIMENSIONED PRODUCT. COVERS SHALL BE DESIGNED TO BE BOLTED DOWN TO BOXES OR HOT DIPPED GALVANIZED STEEL BRACKETS TO RETROFIT EXISTING CONCRETE BOXES.
2. POLYMER CONCRETE BOXES SHALL WITHSTAND A VERTICAL TEST LOAD OF 20,800LB. (H 20 WHEEL LOAD OF 16,000 LB. PLUS 30% IMPACT FACTOR) LOAD OF OVER A 10"X20"X1/2" RUBBER PLATE BACKED WITH A 10"20"X1" THICK STEEL PLATE CENTERED ON THE COVER AREA. THE TESTING LOAD SHALL NOT CAUSE ANY FAILURE TO THE BOX. THE BOX CAN BE USED WITH A PEDESTRIAN RATED COVER OR 20,800 POUNDS OF LOAD RATED TO THE BOX. THE BOX CAN BE USED WITH A PEDESTRIAN RATED COVER OR 20,800 POUNDS OF LOAD RATED COVER.
3. BOXES AND COVERS SHALL BE "CONCRETE GRAY" IN COLOR.
4. POLYMER CONCRETE MATERIAL SHALL BE TESTED BY ASTM TO MEET LA COUNTY REQUIREMENTS.

X9-002

CLMD 1687

STANDARDS
STREET LIGHTING PLANS
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

NO.	REVISION	REVISED BY	APPROVED BY	DATE

PROJECT ENGINEER DATE

TM No. 52796 | DWG SHT-06 | SHEET 6 OF 6

PLOT DATE: 1-3-2023

Z:\X9-002 Tract 52796 Los Angeles St Ltg\ES.dwg