

**STREET LIGHTING GENERAL NOTES:**

THE FOLLOWING NOTES SHALL APPEAR ON ALL STREET LIGHTING PLANS AND ARE INCLUDED HERE FOR THE USER'S REFERENCE.

1. ALL EQUIPMENT/MATERIALS AND CONSTRUCTION SHALL MEET OR EXCEED THE REQUIREMENTS CONTAINED IN THE CURRENT PIMA ASSOCIATION OF GOVERNMENTS (PAG) STANDARD SPECIFICATIONS AND THE STANDARD DETAILS FOR PUBLIC IMPROVEMENTS, THE SPECIAL PROVISIONS AND THE APPROVED PLANS.
2. THE EXACT LOCATION OF EACH NEW POLE FOUNDATION, PULLBOX, OR ELECTRIC SERVICE PEDESTAL FOUNDATION SHALL BE APPROVED BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
3. THE TOP OF THE POLE FOUNDATION SHALL BE LEVEL WITH THE SURROUNDING FINISHED GRADE. IF THE SLOPE OR SHOULDER DROPS OFF FROM FINISHED GRADE, THE CONTRACTOR SHALL GRADE AROUND POLE FOUNDATION. THE TOP OF THE FOUNDATION SHALL EXTEND NO MORE THAN FOUR (4) INCHES ABOVE THE SURROUNDING FINISHED GRADE.
4. SPREAD FOUNDATIONS, IF REQUIRED BY FIELD INSPECTION OR AS IDENTIFIED ON THE APPROVED PLANS, SHALL BE CONSTRUCTED IN ACCORDANCE WITH PAG STD. DTL. T-433. THE CONTRACTOR SHALL VERIFY POLE BOLT PATTERN & DIMENSIONS REQUIRED FOR THE PROJECT. POLE LOCATIONS OF SUCH FOUNDATIONS SHALL BE FIELD IDENTIFIED BY THE INSPECTOR.
5. POLE FOUNDATIONS SHALL MAINTAIN A MINIMUM OF SIX (6) FEET HORIZONTAL DISTANCE FROM EXISTING WATER MAINS, MEASURED FROM OUTSIDE OF THE FOUNDATION WALL TO THE OUTSIDE OF PIPE WALL.
6. THE PULLBOXES SHOWN ON THE PLANS ARE DIAGRAMMATIC REPRESENTATIONS. THE EXACT LOCATION OF THE PULLBOXES SHALL BE ADJACENT TO STREETLIGHT POLE AT LOCATIONS PRE-APPROVED BY THE INSPECTOR.
7. PULLBOXES SHALL NOT BE INSTALLED WITHIN CONCRETE CURB ACCESS RAMPS OR LANDINGS. IN ADDITION, ANY PULLBOXES INSTALLED BEHIND CURBS SHALL BE INSTALLED BETWEEN THE CURB AND THE PROPOSED/FUTURE SIDEWALK OR BEYOND THE PROPOSED/FUTURE SIDEWALK. AN EXCEPTION TO THIS NOTE WOULD BE BOXES INSTALLED IN A MEDIAN. ANY PULLBOXES INSTALLED ALONG AN UNCURBED ROADWAY SHALL BE INSTALLED TEN (10) FEET FROM EDGE OF PAVEMENT TO EDGE OF PULLBOX WHERE RIGHT-OF-WAY PERMITS OR AS FAR FROM PAVEMENT AS PRACTICAL WHEN THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE THE TEN (10) FOOT OFFSET.
8. A THREE QUARTER (3/4) INCH BY 10 FOOT GROUND ROD SHALL BE INSTALLED IN THE NO. 7 PULL BOX (WITH THE EXTENSION) ADJACENT TO THE CONTROLLER CABINET. A 3/4 INCH BY 10 FOOT GROUND ROD SHALL BE INSTALLED IN THE NO. 3 1/2 PULL BOX AT THE END OF EACH STREET LIGHT CIRCUIT. TWO GROUND ROD CLAMPS SHALL BE FURNISHED AND INSTALLED FOR EACH GROUND ROD FOR CLAMPING THE GROUND WIRE.
9. ONLY NEW CONDUIT, CONDUCTORS, AND CABLE SHALL BE INSTALLED.
10. THE CONDUIT LOCATIONS SHOWN ON THE APPROVED PLANS ARE DIAGRAMMATIC REPRESENTATIONS ONLY. THE LOCATION OF THE CONDUIT MAY BE ADJUSTED IN THE FIELD TO AVOID ANY CONFLICTS. THE CONTRACTOR SHALL OBTAIN APPROVAL PRIOR TO INSTALLATION. ALL CONDUITS SHALL BE INSTALLED WITHIN EXISTING RIGHT-OF-WAY UNLESS OTHERWISE APPROVED.
11. CONDUIT INSTALLED UNDER EXISTING PAVED DRIVEWAYS, THAT ARE NOT SCHEDULED TO BE RECONSTRUCTED AS PART OF THIS PROJECT, SHALL BE INSTALLED BY MEANS OF BORING.
12. ALL CONDUIT SHALL BE INSTALLED A MINIMUM OF 36 INCHES, TO TOP OF CONDUIT, BELOW FINISHED GRADE, EXCEPT WHEN CONDUITS CROSS CULVERTS OR ARE ROUTED ALONG BRIDGE AND WINGWALLS. ANY CONDUIT INSTALLED LESS THAN 36 INCHES DEEP SHALL BE ENCASED IN CONCRETE PER PAG STANDARD SPECIFICATIONS 732-3.01.
13. ALL ROADWAY STREET LIGHT SYSTEM CONDUITS SHALL BE PVC SCHEDULE 40 UNLESS NOTED OTHERWISE. CONDUIT ADJACENT TO CURB SHALL BE INSTALLED 6 INCHES BACK OF CURB AND 36 INCHES BELOW TOP OF CURB.
14. ALL CONDUITS SHALL BE CLEANED BY COMPRESSED AIR. A PROPERLY SIZED CONDUIT PISTON OR MANDREL SHALL BE PULLED THROUGH THE CONDUIT PRIOR TO CONDUCTOR AND CABLE INSTALLATION.
15. CONDUITS FOR FUTURE USE SHALL BE SEALED WITH A PROPERLY SIZED TAPERED POLYETHYLENE DUCT PLUG AT EACH TERMINATION POINT. THE #8 BARE BOND WIRE SHALL BE LOOPED THROUGH THE PLUG PULL TAB AND TWO FEET OF SLACK DOUBLED BACK INTO THE CONDUIT.
16. AVOID PLACING UNDERGROUND CONDUIT OVER EXISTING WATER MAINS AND MAINTAIN A SIX (6) FOOT MINIMUM HORIZONTAL SEPARATION, TYPICAL FOR ALL CONDUIT INSTALLATIONS THROUGHOUT THE PROJECT.
17. ALL POLES SHALL BE WIRED AND GROUNDED PER PAG STD. DTL. T-107, WITH THE EXCEPTION OF THE WIRE TYPE. REFER TO NOTE 18 BELOW FOR WIRE SIZE AND TYPE UNLESS OTHERWISE NOTED ON THE PLANS.
18. TWO #10 AWG-XHHW CONDUCTORS SHALL BE INSTALLED FROM EACH LUMINAIRE TO THE CONCRETE PULL BOX ADJACENT TO THE POLE FOUNDATION, LEAVING THREE (3) FEET OF SLACK FOR EACH CONDUCTOR (MEASURED FROM THE TOP OF THE PULL BOX) IN THE PULL BOX. ROUTE FOUR CONDUCTORS TO THE LUMINAIRE WITH THE PHOTOELECTRIC CELL. AN IN-LINE FUSE SHALL BE INSTALLED FOR EACH LUMINAIRE IN THE ASSOCIATED PULL BOX.
19. DUAL ARC TUBE LAMPS SHALL BE USED ON ALL LUMINAIRES.

20. ALL LUMINAIRES SHALL HAVE PHOTOCELL RECEPTACLES. THE STREET LIGHTING PHOTOELECTRIC CELL SHALL BE MOUNTED ON THE LUMINAIRE POLE CLOSEST TO THE STREET LIGHTING CONTROLLER OR, IF A CONTROLLER IS NOT REQUIRED, THE LUMINAIRE POLE CLOSEST TO THE METER PEDESTAL. ALL OTHER LUMINAIRES SHALL HAVE SHORTING CAPS.
21. THE TUCSON ELECTRIC POWER COMPANY CONSTRUCTION DEPARTMENT (918-8300) SHALL BE CONTACTED BY THE CONTRACTOR TO VERIFY LOCATION OF THE ELECTRIC SERVICE CONNECTION AT THE INTERSECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATING AND BACKFILLING THE TRENCH AND INSTALLING ANY NECESSARY SLEEVES UNDER SIDEWALKS OR DRIVEWAYS IN WHICH THE ELECTRIC SERVICE CABLE IN CONDUIT (CIC) IS TO BE INSTALLED BY TEP.  
*[NOTE: IF NOT TEP, MODIFY NAME OF ELECTRIC UTILITY AND PROVIDE THE CORRECT NUMBER FOR THE UTILITY CONTACT PHONE NUMBER.]*
22. A MINIMUM OF TEN FOOT RADIAL CLEARANCE SHALL BE MAINTAINED BETWEEN ALL METALLIC PARTS AND OVERHEAD ELECTRIC CONDUCTORS WHILE INSTALLING POLES AND LUMINAIRES. BLUE STAKE SHALL BE CONTACTED IF THE CONTRACTOR REQUIRES OVERHEAD PROTECTION.
23. A MINIMUM HORIZONTAL SEPARATION OF 24 INCHES SHALL BE MAINTAINED FROM ALL GAS LINES.
24. THE TRAFFIC SIGNAL OPERATION AT EXISTING SIGNALIZED INTERSECTIONS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.
25. UPON COMMENCEMENT OF WORK, TRAFFIC CONTROL DEVICES SHALL BE POSTED AND MAINTAINED BY THE CONTRACTOR UNTIL SUCH A TIME AS THE WORK IS COMPLETE. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS ADOPTED BY PIMA COUNTY & APPROVED BY THE ENGINEER. ALL TRAFFIC CONTROL DEVICES ON FEDERALLY FUNDED PROJECTS SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS ADOPTED BY ADOT AND APPROVED BY THE ENGINEER.

**RESPONSIBILITIES:**

1. THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED BY ALL GOVERNMENTAL AGENCIES.
2. THE CONTRACTOR SHALL CONTACT THE BLUE STAKE AT 1-800-782-5348, A MINIMUM OF 2 WORKING DAYS PRIOR TO ANY EXCAVATION.
3. THE CONTRACTOR SHALL MAINTAIN AND ALLOW ACCESS TO ALL PIMA COUNTY WASTEWATER MANHOLES LOCATED WITHIN THE RIGHT-OF-WAY. ACCESS MUST BE MAINTAINED 24 HOURS PER DAY, 7 DAYS A WEEK. NO ELECTRICAL UTILITIES MAY BE PLACED WITHIN 6 FEET OF A FORCE MAIN.
4. THE LOCATION OF THE UTILITIES SHOWN ON THE PLANS IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING/POTHOLING UNDERGROUND UTILITIES IN THE VICINITY OF THE PROPOSED POLE FOUNDATIONS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR VERIFYING THE CLEARANCE BETWEEN OVERHEAD LINES AND STREET LIGHTING EQUIPMENT PRIOR TO INSTALLATION OF POLES AND FOUNDATIONS.
5. ANY EQUIPMENT AND/OR UTILITIES WITHIN THE PROJECT LIMITS THAT ARE DAMAGED OR DESTROYED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE SOLE EXPENSE OF THE CONTRACTOR.
6. THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL EQUIPMENT AND MATERIALS FOR THE INSTALLATION OF THE STREET LIGHTS AS SPECIFIED ON THE APPROVED PLANS AND IN THE PROJECT SPECIFICATIONS.
7. THE CONTRACTOR SHALL CAREFULLY DISASSEMBLE AND SALVAGE ALL EXISTING TRAFFIC SIGNAL AND STREET LIGHTING EQUIPMENT THAT IS NOT TO REMAIN, EXCEPT EXISTING WIRELESS COMMUNICATIONS AND PTZ CAMERA EQUIPMENT. ALL OF THE EQUIPMENT SHALL BE SAFELY STORED AT THE CONSTRUCTION SITE UNTIL IT IS REINSTALLED OR SAFELY RETURNED TO THE PCDOT MAINTENANCE YARD, 1313 S. MISSION ROAD. THE EQUIPMENT SHALL BE SAFELY UNLOADED BY THE CONTRACTOR. CONTACT THE SIGNAL SHOP SUPERVISOR (724-5887) AT LEAST TWO (2) WORKING DAYS PRIOR TO RETURNING THE EQUIPMENT.
8. UNLESS SPECIFICALLY IDENTIFIED FOR REMOVAL AS PART OF THIS PROJECT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR /RESTORE ANY LANDSCAPING, IRRIGATION, OR HARDSCAPE THAT MAY HAVE BEEN DAMAGED OR DISTURBED BY THE CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM THE OPERATIONS DIVISION PUBLIC WORKS SUPERVISOR (724-2639) BEFORE ANY PLANTS ARE MOVED.

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

Designed	Drawn	Checked	Proj. Engr.	Date
				10/08/2018

Pima County Department of Transportation  
**STREET LIGHTING GENERAL NOTES:**



Project Name - Xxxx Road to Xxxx Road - Project No. 4XXXX