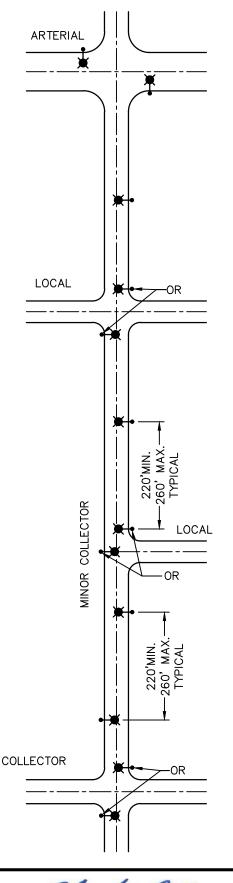


- STREETLIGHTS ON LOCAL STREETS SHALL BE LED MINIMUM 5,800 LUMEN WITH CUT—OFF LUMINAIRES, LUMINAIRE ELEVATION OF 26', MOUNTED ON MARBLELITE POLES WITH 8' ALUMINUM MAST ARMS. ALTERNATIVE STREETLIGHT POLES ARE SUBJECT TO APPROVAL OF THE CITY ENGINEER.
- STREETLIGHTS SHALL BE INSTALLED AT LOCATIONS AS DETERMINED BY THE CITY ENGINEER UPON REVIEW OF SUBMITTED IMPROVEMENT PLANS.
- A STREETLIGHT SHALL BE INSTALLED AT EACH INTERSECTION. SHOULD THE DISTANCE EXCEED 360' BETWEEN INTERSECTIONS AN INTERMEDIATE STREETLIGHT, OR STREETLIGHTS, SHALL BE INSTALLED. SPACING OF STREET LIGHTS BETWEEN INTERSECTIONS WHERE REQUIRED SHALL BE 180' MINIMUM TO 240' MAXIMUM.
- CUL-DE-SACS SHALL HAVE A MINIMUM OF ONE STREETLIGHT AND SHALL FOLLOW THE ABOVE SPACING REQUIREMENTS.
- A STREET LIGHTING PLAN PREPARED BY A LICENSED ENGINEER SHALL BE SUBMITTED TO THE CITY. THE PLAN SHALL INCLUDE LOCATIONS OF STREETLIGHTS, PULL BOXES, CONDUIT, METER PEDESTAL, POINT OF SERVICE, AND VOLTAGE DROP CALCULATIONS. THE LIGHTING SYSTEM MUST COMPLY WITH THE CURRENT NATIONAL ELECTRICAL CODE (NEC) AND THE CALIFORNIA ELECTRICAL CODE (CEC).
- STREET LIGHTING SHALL BE DESIGNED TO MINIMIZE THE NUMBER OF METER PEDESTALS.
- A "WILL SERVE" LETTER FROM SOUTHERN CALIFORNIA EDISON SHALL BE SUBMITTED TO THE CITY PRIOR TO APPROVAL OF STREET LIGHTING PLANS.
- A MINIMUM SEPARATION OF 20' IS REQUIRED BETWEEN TREES AND STREETLIGHT POLES.
- ALL STREETLIGHTS INSTALLED OR REPLACED IN THE CENTRAL BUSINESS DISTRICT ARE SUBJECT TO APPROVAL OF THE CITY ENGINEER.

CITY OF VISALIA 09/16/16 APPROVED BY: DESIGN & IMPROVEMENT STANDARDS CITY ENGINEER R.P.E. 81734 REVISIONS LOCAL STREET LIGHTING 04/29/16 RESIDENTIAL & INDUSTRIAL

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- STREETLIGHTS ON MINOR COLLECTOR STREETS SHALL BE LED — MINIMUM 9,500 LUMEN WITH CUT—OFF LUMINAIRES, LUMINAIRE ELEVATION OF 29' MOUNTED ON MARBLELITE POLES WITH 8' ALUMINUM MAST ARMS.
- 2. STREETLIGHTS SHALL BE INSTALLED AT LOCATIONS AS DETERMINED BY THE CITY ENGINEER UPON REVIEW OF SUBMITTED IMPROVEMENT PLANS.
- A STREETLIGHT SHALL BE INSTALLED AT EACH INTERSECTION. STREETLIGHT SPACING SHALL BE 220' MINIMUM TO 260' MAXIMUM.
- 4. STREETLIGHTS SHALL BE STAGGERED FROM SIDE TO SIDE OF STREET, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- 5. IF AN INTERSECTION IS SIGNALIZED, A STREETLIGHT SHALL BE INSTALLED ON EACH CORNER AS A PART OF THE TRAFFIC SIGNAL SYSTEM.
- 6. A STREET LIGHTING PLAN PREPARED BY A LICENSED ENGINEER SHALL BE SUBMITTED TO THE CITY. THE PLAN SHALL INCLUDE LOCATIONS OF STREETLIGHTS, PULL BOXES, CONDUIT, METER PEDESTAL, POINT OF SERVICE, AND VOLTAGE DROP CALCULATIONS. THE LIGHTING SYSTEM MUST COMPLY WITH THE CURRENT NATIONAL ELECTRICAL CODE (NEC) AND THE CALIFORNIA ELECTRICAL CODE (CEC).
- 7. STREET LIGHTING SHALL BE DESIGNED TO MINIMIZE THE NUMBER OF METER PEDESTALS.
- 8. A "WILL SERVE" LETTER FROM SOUTHERN CALIFORNIA EDISON SHALL BE SUBMITTED TO THE CITY PRIOR TO APPROVAL OF STREET LIGHTING PLANS.
- A MINIMUM SEPARATION OF 20' IS REQUIRED BETWEEN TREES AND STREETLIGHT POLES.
- 10. ALL STREETLIGHTS INSTALLED OR REPLACED IN THE CENTRAL BUSINESS DISTRICT ARE SUBJECT TO APPROVAL OF THE CITY ENGINEER.

APPROVED BY: Note R.P.E. 81734 09/16/16

CITY ENGINEER R.P.E. 81734 DATE

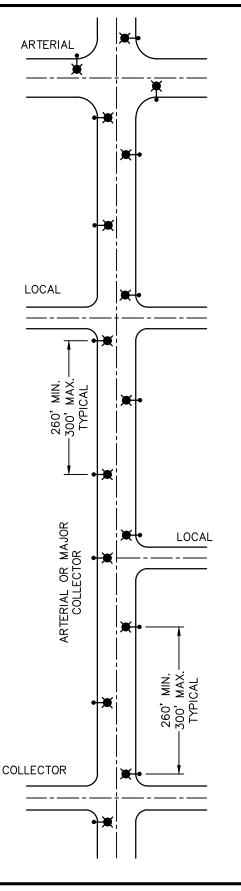
CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

MINOR COLLECTOR STREET LIGHTING

REVISIONS

04/29/16

BK 2016



- STREETLIGHTS ON ARTERIAL STREETS SHALL BE LED MINIMUM 16,000 LUMEN WITH CUT-OFF LUMINAIRES, LUMINAIRE ELEVATION OF 29', MOUNTED ON MARBLELITE POLES WITH 8' ALUMINUM MAST ARMS.
- STREETLIGHTS ON MAJOR COLLECTOR STREETS SHALL BE LED — MINIMUM 9,500 LUMEN WITH CUT—OFF LUMINAIRES, LUMINAIRE ELEVATION OF 29', MOUNTED ON MARBLELITE POLES WITH 8' ALUMINUM MAST ARMS.
- STREETLIGHTS SHALL BE INSTALLED AT LOCATIONS AS DETERMINED BY THE CITY ENGINEER UPON REVIEW OF SUBMITTED IMPROVEMENT PLANS.
- TWO STREETLIGHTS SHALL BE INSTALLED AT EACH INTERSECTION. STREETLIGHT SPACING SHALL BE 260' MINIMUM TO 300' MAXIMUM.
- STREETLIGHTS SHALL BE INSTALLED ON BOTH SIDES OF THE STREET.
- IF AN INTERSECTION IS SIGNALIZED, A STREETLIGHT SHALL BE INSTALLED ON EACH CORNER AS A PART OF THE TRAFFIC SIGNAL SYSTEM.
- 7. A STREETLIGHT PLAN PREPARED BY A LICENSED ENGINEER SHALL BE SUBMITTED TO THE CITY. THE PLAN SHALL INCLUDE LOCATIONS OF STREETLIGHTS, PULL BOXES, CONDUIT, METER PEDESTAL, POINT OF SERVICE, AND VOLTAGE DROP CALCULATIONS. THE LIGHTING SYSTEM MUST COMPLY WITH THE CURRENT NATIONAL ELECTRICAL CODE (NEC) AND THE CALIFORNIA ELECTRICAL CODE (CEC).
- 8. STREET LIGHTING SHALL BE DESIGNED TO MINIMIZE THE NUMBER OF METER PEDESTALS.
- A "WILL SERVE" LETTER FROM SOUTHERN CALIFORNIA EDISON SHALL BE SUBMITTED TO THE CITY PRIOR TO APPROVAL OF STREET LIGHTING PLANS.
- 10. A MINIMUM SEPARATION OF 20' IS REQUIRED BETWEEN TREES AND STREETLIGHT POLES.
- 11. ALL STREETLIGHTS INSTALLED OR REPLACED IN THE CENTRAL BUSINESS DISTRICT ARE SUBJECT TO APPROVAL OF THE CITY ENGINEER.

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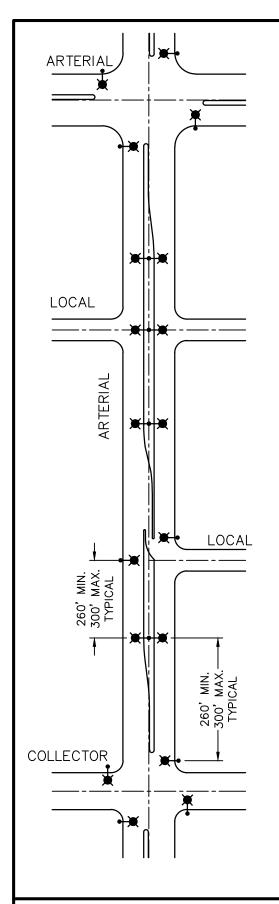
CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

ARTERIAL AND MAJOR COLLECTOR STREET LIGHTING

REVISIONS

04/29/16

BK 2016



- STREET LIGHTS SHALL BE INSTALLED IN MEDIAN. STREET LIGHTS INSTALLED IN MEDIAN SHALL BE INSTALLED ON SINGLE OCTAGONAL POLES WITH A POLE HEIGHT OF 25'-9" AND SHALL HAVE DUAL MAST ARMS WITH A LENGTH OF 8' EACH.
- INTERSECTIONS MAY BE SUPPLEMENTED WITH LIGHTING BEHIND CURB AND GUTTER IF MEDIAN LIGHTING CANNOT BE POSITIONED TO PROVIDE ADEQUATE ILLUMINATION.
- 3. STREETLIGHTS ON ARTERIAL STREETS SHALL BE LED MINIMUM 16,000 LUMEN WITH CUT—OFF LUMINAIRES, LUMINAIRE ELEVATION OF 29', MOUNTED ON MARBLELITE POLES WITH 8' ALUMINUM MAST ARMS.
- 4. STREETLIGHTS ON MAJOR COLLECTOR STREETS SHALL BE LED — MINIMUM 9,500 LUMEN WITH CUT—OFF LUMINAIRES, LUMINAIRE ELEVATION OF 29', MOUNTED ON MARBLELITE POLES WITH 8' ALUMINUM MAST ARMS.
- 5. STREETLIGHTS SHALL BE INSTALLED AT LOCATIONS AS DETERMINED BY THE CITY ENGINEER UPON REVIEW OF SUBMITTED IMPROVEMENT PLANS.
- STREETLIGHT SPACING SHALL BE 260' MINIMUM TO 300' MAXIMUM.
- IF AN INTERSECTION IS SIGNALIZED, A STREETLIGHT SHALL BE INSTALLED ON EACH CORNER AS A PART OF THE TRAFFIC SIGNAL SYSTEM.
- 8. A STREETLIGHT PLAN PREPARED BY A LICENSED ENGINEER SHALL BE SUBMITTED TO THE CITY. THE PLAN SHALL INCLUDE LOCATIONS OF STREETLIGHTS, PULL BOXES, CONDUIT, METER PEDESTAL, POINT OF SERVICE, AND VOLTAGE DROP CALCULATIONS. THE LIGHTING SYSTEM MUST COMPLY WITH THE CURRENT NATIONAL ELECTRICAL CODE (NEC) AND THE CALIFORNIA ELECTRICAL CODE (CEC).
- 9. STREET LIGHTING SHALL BE DESIGNED TO MINIMIZE THE NUMBER OF METER PEDESTALS.
- 10. A "WILL SERVE" LETTER FROM SOUTHERN CALIFORNIA EDISON SHALL BE SUBMITTED TO THE CITY PRIOR TO APPROVAL OF STREET LIGHTING PLANS.
- 11. A MINIMUM SEPARATION OF 20' IS REQUIRED BETWEEN TREES AND STREETLIGHT POLES.
- 12. ALL STREETLIGHTS INSTALLED OR REPLACED IN THE CENTRAL BUSINESS DISTRICT ARE SUBJECT TO APPROVAL OF THE CITY ENGINEER.

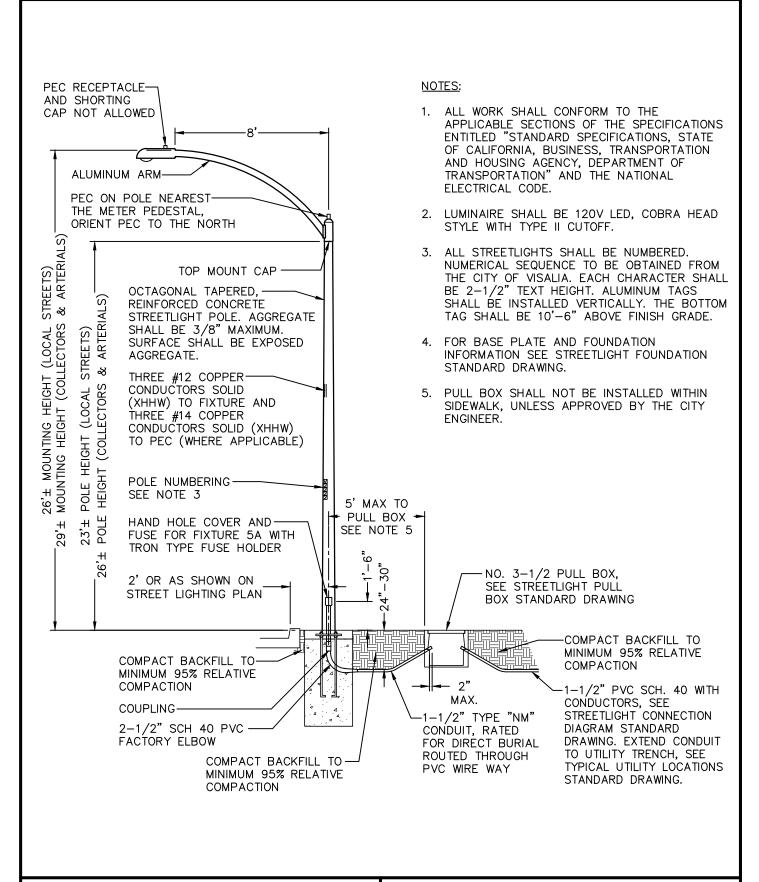
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DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

ARTERIAL STREET LIGHTING
WITH MEDIAN CURB

REVISIONS

08/22/16 BK 2016



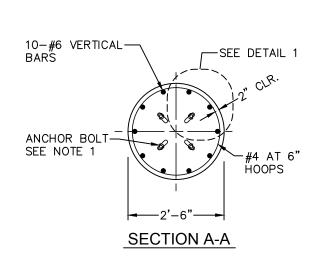
CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

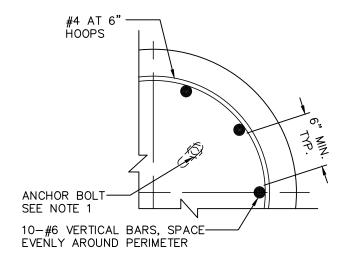
STREETLIGHT POLE

REVISIONS

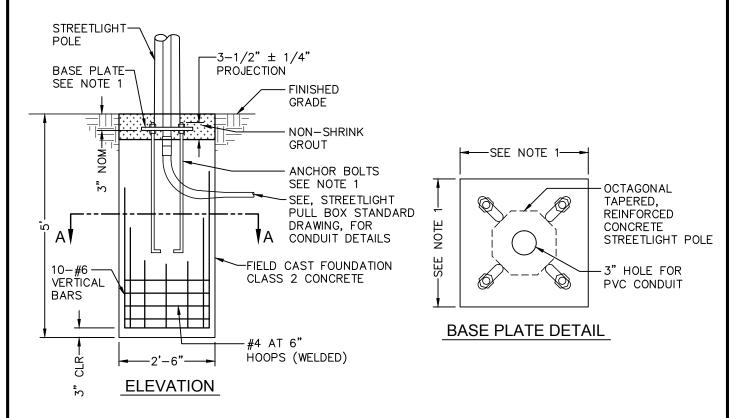
08/22/16 BK 2016

5L-5





# DETAIL 1



# CAST-IN-DRILLED HOLE PILE FOUNDATION REINFORCED PILE

# NOTE:

1. BASE PLATE AND ANCHOR BOLT DIMENSIONS PER MANUFACTURER SPECIFICATIONS. AT MINIMUM, ANCHOR BOLTS 1"øx36"x4". INSTALL PER MANUFACTURERS RECOMMENDATION.

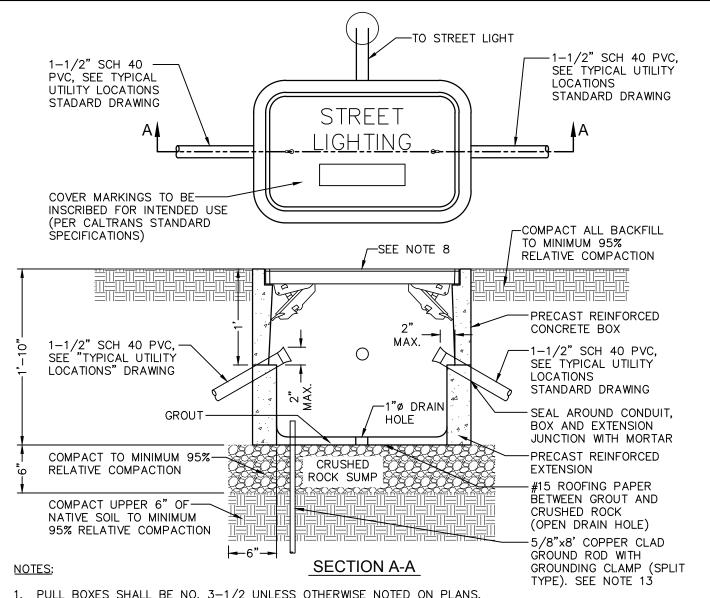
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DATE

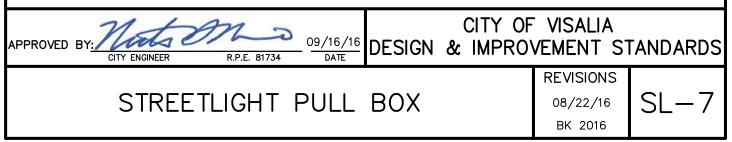
CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

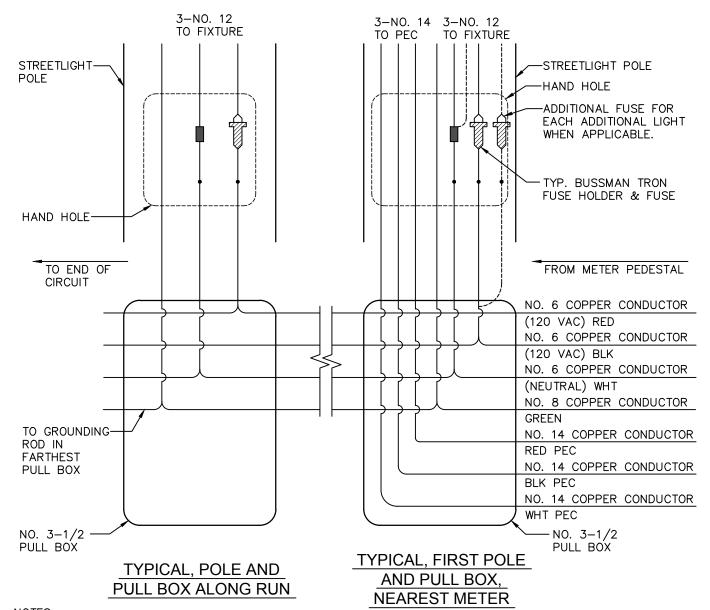
STREETLIGHT FOUNDATION

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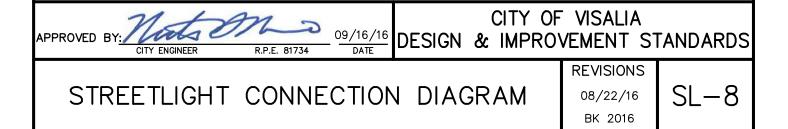


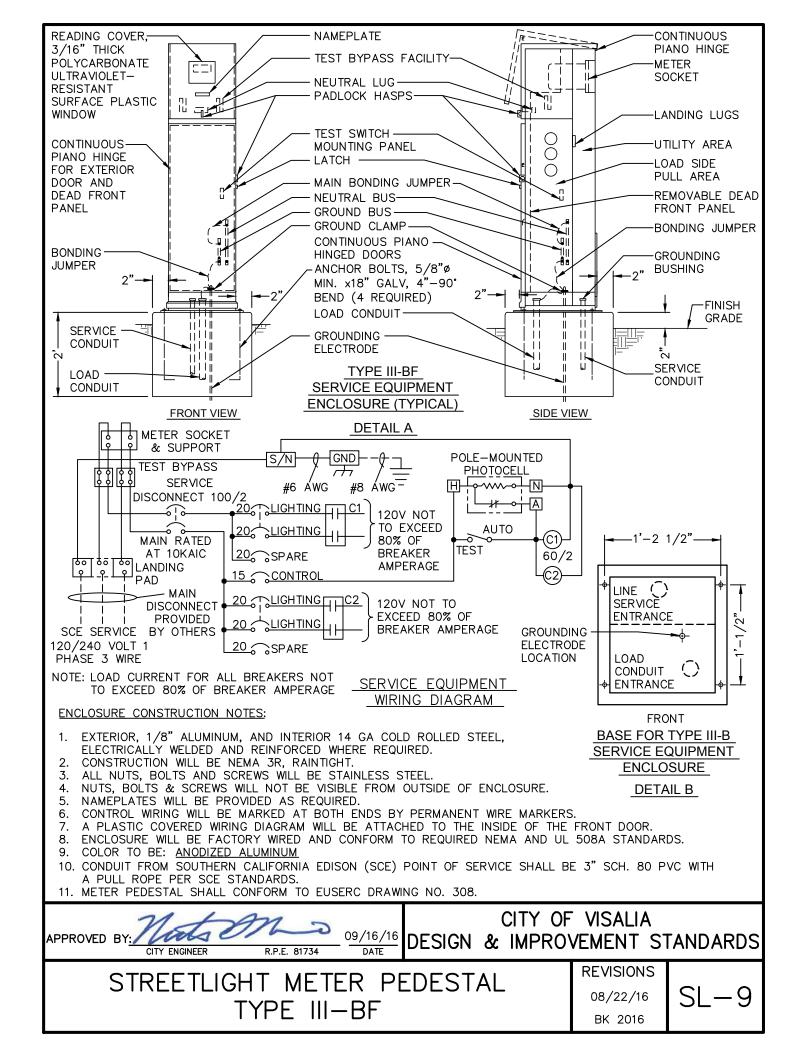
- PULL BOXES SHALL BE NO. 3-1/2 UNLESS OTHERWISE NOTED ON PLANS.
- PULL BOXES SHALL BE GROUTED PRIOR TO INSTALLATION OF CONDUCTORS. SLOPED TOWARD THE DRAIN HOLE. PLACE A LAYER OF ROOFING PAPER BETWEEN THE CRUSHED ROCK AND GROUT. OPEN AT DRAIN HOLE.
- PULL LIDS BEFORE POURING CONCRETE AROUND PULL BOXES.
- WRAP BOX WITH ROOFING PAPER BEFORE BACKFILLING.
- PULL BOX SHALL BE TRAFFIC RATED PER CALTRANS STANDARDS IF NOT LOCATED BEHIND A CURB.
- STREET LIGHT CONDUCTORS SHALL BE INSTALLED CONTINUOUS. SPLICES SHALL ONLY BE PERMITTED AT THE PULL BOX.
- FIRMLY INSTALL DUCT SEAL AFTER INSTALLATION OF CONDUCTORS.
- A LOCKING LID SHALL BE INSTALLED. LID SHALL BE GALVANIZED STEEL DIAMOND PLATE, MINIMUM THICKNESS 3/16", WITH MINIMUM TWO CLAMPING JAWS. DELIVER ONE KEY PER PROJECT TO THE CITY OF VISALIA REPRESENTATIVE OR AS DIRECTED BY THE CITY REPRESENTATIVE. LID SHALL BE LOCKJAW BRAND OR APPROVED EQUAL. LID SHALL BE BONDED PER CALTRANS STANDARDS FOR TRAFFIC RATED LIDS.
- A MINIMUM OF 2' OF SLACK IN EACH CONDUCTOR SHALL BE LEFT IN EACH PULL BOX. TWIST AND PUSH TO BOTTOM OF PULL BOX TO PREVENT WIRE FROM PULLING THROUGH.
- 10. CONDUIT SHALL HAVE BELL ENDS. EMPTY CONDUITS SHALL BE CAPPED WITHOUT GLUE.
- 11. CONDUIT SHALL BE MANDREL TESTED AFTER BACKFILL AND COMPACTION IN THE PRESENCE OF THE CITY OF VISALIA REPRESENTATIVE.
- 12. REFER TO TYPICAL UTILITY LOCATIONS STANARD DRAWING FOR PLACEMENT OF STREET LIGHTING CONDUIT IN UTILITY TRENCHES.
- 13. GROUND RODS REQUIRED ONLY IN PULL BOX FARTHEST FROM THE METER PEDESTAL AND IN THE METER PEDESTAL.

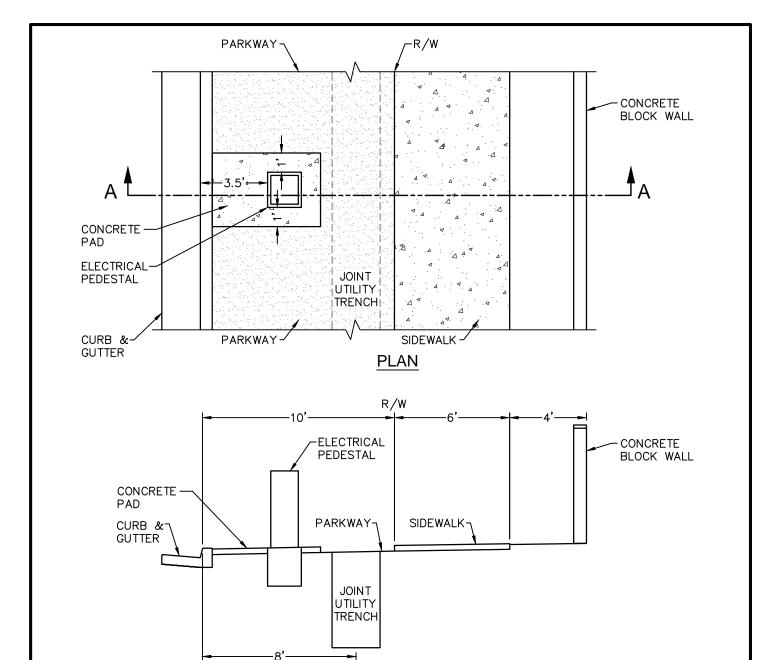




- 1. ALL CONDUCTORS SHALL BE (XHHW) TYPE, OR AS APPROVED BY CITY ENGINEER.
- 2. VOLTAGE DROP CALCULATIONS SHALL BE PERFORMED BY A LICENSED ENGINEER AND SUBMITTED TO THE CITY OF VISALIA FOR REVIEW.
- 3. 240V CIRCUITS ARE NOT STANDARD BUT MAY BE USED IF WARRANTED BY SPECIAL CIRCUMSTANCES. 240V CIRCUITS REQUIRE APPROVAL OF THE CITY ENGINEER AND SHALL BE DESIGNED BY A LICENSED ENGINEER.
- 4. SPLICES SHALL BE PER CALTRANS STANDARD PLAN ES-13A, TYPE "S" OR TYPE "ST" AS APPLICABLE. SPLICES SHALL BE INSULATED IN ACCORDANCE WITH METHOD "B".
- 5. SPLIT BOLT CONNECTOR (KEARNEY CONNECTORS, OR EQUAL), MAY BE USED TO SPLICE NO. 8 CONDUCTORS OR LARGER WITH METHOD "B" INSULATION.
- 6. WIRE NUTS ARE NOT ALLOWED FOR SPLICING.
- 7. THIS WIRING DIAGRAM DOES NOT SHOW THE SEPARATE GFI CIRCUIT REQUIRED IN THE DOWNTOWN AREA.







# **SECTION A-A**

### NOTES:

- 1. ALL CONCRETE SHALL BE CLASS 3 CONCRETE.
- 2. A PLASTIC COVERED SET OF ELECTRICAL PLANS SHALL BE ATTACHED TO THE INSIDE OF THE FRONT DOOR.

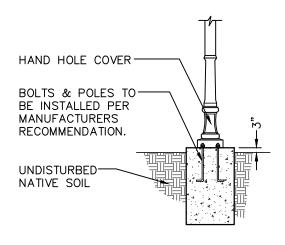
APPROVED BY: CITY ENGINEER R.P.E. 81734 09/16/16 DESIGN & IMPROVEMENT STANDARDS

ELECTRICAL PEDESTAL LOCATION FOR COLLECTOR AND ARTERIAL STREETS

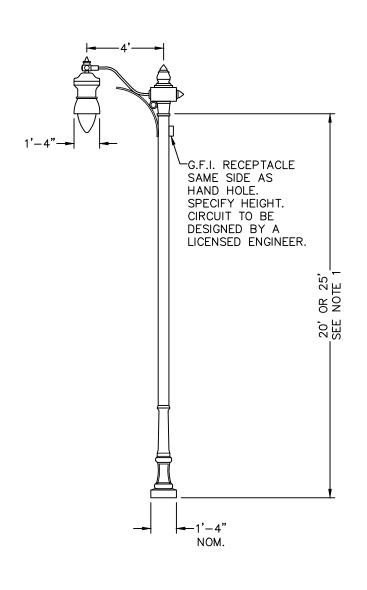
REVISIONS 08/23/16

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- DOWNTOWN AND TRANSIT AREA STREET LIGHT HEIGHT WILL BE 25'. RESIDENTIAL STREET LIGHT HEIGHT WILL BE 20'.
- MEDIAN STREET LIGHTS WILL BE DUAL HEAD.
- 3. POLE SHALL BE STEEL.
- 4. MANUFACTURER AND MODEL NUMBER SHALL BE PROVIDED TO THE CITY FOR REVIEW. VISUAL CHARACTERISTICS SHALL BE SIMILAR TO POLES CURRENTLY EXISTING IN THE CITY OF VISALIA.
- 5. LUMINAIRE SHALL BE LED.
- USE OF ORNAMENTAL STREETLIGHTS IS RESTRICTED AND SHALL BE APPROVED BY THE CITY ENGINEER.
- FOR FOUNDATION INFORMATION SEE STREETLIGHT FOUNDATION STANDARD DRAWING.







**ELEVATION** 

APPROVED BY: Marine R.P.E. 81734

09/16/16 DATE CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

ORNAMENTAL STREETLIGHT 1 OF 2

REVISIONS

08/22/16 BK 2016

**SPECIFICATIONS** 

LUMINAIRE: SEALED LED OPTICAL MODULE, LOW COPPER A356 ALLOY (<0.2%

> COPPER) CAST ALUMINUM HOUSING. TOP AND BOTTOM ARE HINGED FOR ACCESS WITH SEPARATE DRIVER AND LED COMPARTMENTS.

SEALED LED OPTICAL MODULE, LOW COPPER A356 ALLOY (<0.2% VLED OPTICAL MODULE:

COPPER) CAST ALUMINUM HOUSING, INTEGRATED CLEAR PRISMATIC BOROSILICATE GLASS REFRACTOR SEALED WITH A CONTINUOUS SILICONE GASKET. ENTIRE MODULE MUST MEET IP67 RATING.

VLED EMITTERS AND OPTICS: 80 LUXEON T EMITTERS (LED'S) DRIVEN AT 525 mA FOR 132 TOTAL

INPUT WATTS. HIGHT OUTPUT, NEUTRAL WHITE NOMINAL 4000K CCT FOR THE ENTIRE MODULE. EACH EMITTER TO BE OPTICALLY CONTROLLED BY A REFLECTOR-PRISM INJECTION MOLDED FROM H12 ACRYLIC. REFLECTOR-PRISMS TO BE ARRAYED TO PRODUCE IES TYPE III LIGHT DISTRIBUTION. OPTICAL MODULE TO BE FIELD ROTABLE IN THE

LUMINAIRE.

VLED DRIVER: CONSTANT CURRENT LED DRIVER OPERATES ON INPUT VOLTAGES FROM

120-277 V., 50/60 Hz. FACTORY WIRED DRIVER TO BE

INDEPENDENTLY SEALED AND UL LISTED FOR WET LOCATIONS. 20 KA SURGE PROTECTOR WITH "ON" LED OPERATIONAL INDICATER AND END

OF LIFE OPEN CIRCUIT PROTECTION FOR LUMINAIRE.

ARM: DURABLE CORROSION RESISTANT, ALUMINUM CONSTRUCTION.

SHAFT: 16 SHARP FLUTE, ROUND TAPERED STEEL SHAFT WITH 7.0" BUTT

TAPERING TO 3.5" TOP (11 GAGE). MINIMUM YIELD STRENGTH 55,000 P.S.I. HAND HOLE WITH COVER AT 20" FROM BOTTOM OF BASE PLATE.

SHAFT TO BE PROVIDED WITH 42" SMOOTH BOTTOM SECTION.

FABRICATED FROM STRUCTURAL QUALITY HOT ROLLED STEEL, BASE ANCHOR BASE:

TELESCOPES AND TO BE CIRCUMFERENTIALLY WELDED TO SHAFT.

BASE COVER:

TWO PIECE WRAPAROUND, CORROSION RESISTANT, DURABLE CAST ALUMINUM CONSTRUCTION. MINIMUM 0.250 WALL THICKNESS. BASE

CONSISTS OF A SMOOTH TAPERED BOTTOM SECTION AND A

DECORATIVE TAPERED FLUTED SECTION WITH EVENLY SPACED RAISED VERTICAL FLUTES. BASE TO BE FURNISHED WITH A CONTOURED, FLUTED FLUSH HAND HOLE AND COVER. HAND HOLE COVER TO INCLUDE TAMPER RESISTANT HARDWARE. (4) 1/4"-20 SET SCREWS PROVIDED TO SECURE DECORATIVE BASE TO SHAFT.

ANCHORAGE: (4) 1" X 36" ANCHOR BOLT, EACH SUPPLIED WITH TWO NUTS AND

TWO WASHERS.

FINISH: FIXTURE, ARM, AND BASE: POLYESTER POWDER COAT. (COLOR: GREEN

TEXTURED, RAL-6005-T) OR APPROVED EQUAL.

POLE ASSEMBLY: POLYESTER POWDER COAT. (COLOR: GREEN, SMOOTH,

RAL-6005) OR APPROVED EQUAL.

APPROVED BY:

CITY ENGINEER R.P.E. 81734 09/16/16 DATE

CITY OF VISALIA **DESIGN & IMPROVEMENT STANDARDS** 

ORNAMENTAL STREETLIGHT 2 OF 2

REVISIONS

09/15/16

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