

NOTES:

1. ALL CONDUIT TO BE USED SHALL BE SCHEDULE 40 POLYVINYL CHLORIDE. THE MINIMUM DEPTH OF COVER FOR CONDUIT SHALL BE AS FOLLOWS:
  - A. WITHIN SIDEWALK OR LANDSCAPED AREA: 21" – 0" MIN. BETWEEN POWER SUPPLY AND PULL BOX.
  - B. WITHIN ROADWAY AREAS: 30"
2. MINIMUM RADIUS OF BENDS SHALL BE 18 INCHES. ALL BENDS AND/OR OFFSETS SHALL BE MADE WITH FACTORY FABRICATED SECTIONS. THERE SHALL BE NO MORE THAN FOUR BENDS PER RUN.
3. UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER, A NO. 5(T) PULL BOX (CALTRANS STD. ES-8) SHALL BE USED AT ALL STREET LIGHT STANDARDS. COVERS SHALL BE INSCRIBED WITH STREET LIGHTING AND SECURED WITH SOLID BRASS HOLD-DOWN BOLTS.
4. LONG CONDUIT RUNS ARE TO BE AVOIDED. DIRECT POWER SERVICE FROM PG&E SECONDARIES TO THE PULL BOX SHALL BE PROVIDED WHEN POSSIBLE. JUNCTION BOXES TO BE A MAXIMUM OF 250 FEET APART ON LONG RUNS.
5. ALL PULL BOX SPLICES SHALL BE WATERTIGHT.
6. ALL EMPTY CONDUIT SHALL BE CAPPED AND A ¼ INCH NYLON PULL ROPE SHALL BE INSTALLED INSIDE WITH EACH END SECURED IN SUCH A WAY AS TO ASSURE THAT THEY WILL REMAIN EXPOSED.
7. NO SPLICES SHALL BE INSIDE ANY CONDUIT.
8. EACH STREET LIGHT SHALL HAVE A FUSE-DISCONNECT IN THE PULL BOX. FUSE HOLDER SHALL BE OF "FERRAZ SHAWMUT-FEB" IN LINE SERIES, 30A 600V.
9. ALL CONDUCTORS SHALL BE THHN (EITHER STRANDED OR NON-STRANDED). CONDUCTOR SIZE FOR LIGHT CIRCUIT(S) SHALL BE DETERMINED FROM THE CONDUCTOR SIZING CHART ON PAGE 3 OF THIS STANDARD.
10. CONDUCTORS FROM FUSE – DISCONNECT TO LUMINARE SHALL BE #10 THHN.

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CITY OF OROVILLE  
DEPARTMENT OF PUBLIC WORKS  
STANDARD FOR  
STREET LIGHTS – GENERAL NOTES

DRAWN BY.  
SG

RICK WALLS, P.E.  
DIRECTOR OF PUBLIC WORKS DEPARTMENT

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NOTES (CONTINUED):

11. TWO FEET OF WIRE SLACK SHALL BE LEFT IN THE PULL BOX CLOSEST TO EACH TRANSFORMER.
12. OAKUM SHALL BE TAMPED INTO EACH CONDUIT END INSIDE EACH PULL BOX TO KEEP OUT DIRT AND MOISTURE.
13. STREET LIGHTS SHALL BE NUMBERED, SEE ST-28.

PROCEDURE FOR CITY ACCEPTANCE OF STREET LIGHTS

THE CITY WILL ACCEPT OWNERSHIP OF STREET LIGHTS AFTER ALL CONSTRUCTION INSPECTIONS HAVE BEEN SUCCESSFULLY COMPLETED. THE CITY WILL THEN NOTIFY PG&E IN WRITING THAT THE STREET LIGHTS ARE TO BE ACCEPTED BY THE CITY.

PG&E WILL THEN PROVIDE THE CITY WITH LIGHT POLE NUMBERS. THE CITY WILL PROVIDE THE ASSIGNED LIGHT POLE NUMBERS TO THE OWNER (OR STREET LIGHT CONTRACTOR).

THE OWNER IS RESPONSIBLE FOR INSTALLING THE ASSIGNED STREET LIGHT POLE NUMBER(S) TO THE LIGHT POLES IN ACCORDANCE WITH PG&E'S NUMBERING STANDARD (CITY STANDARD ST-28).

THE CITY'S ACCEPTANCE OF THE STREET LIGHTS WILL BE CONSIDERED FINALIZED AFTER THE LIGHT POLES HAVE BEEN NUMBERED. AFTER THE LIGHT POLES HAVE BEEN NUMBERED, THE CITY WILL ACCEPT OWNERSHIP OF THE LIGHTS AND WILL START PAYING THE MONTHLY STREET LIGHTING UTILITY BILL TO PG&E.



CITY OF OROVILLE  
DEPARTMENT OF PUBLIC WORKS

STANDARD NOTES FOR  
STREET LIGHTS – GENERAL NOTES

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# STREET LIGHT CONDUCTOR SIZING CHART – CONDUCTOR CROSS SECTIONAL AREA REQUIRED (MILS)

| NO. OF LIGHTS | DISTANCE FROM TRANSFORMER TO FURTHEST LIGHT IN CIRCUIT OR SUBCIRCUIT |       |       |       |       |       |       |       |       |       |       |       |
|---------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|               | 50   | 100   | 150   | 200   | 250   | 300   | 350   | 400   | 450   | 500   | 550   | 600   |
| 2             | 1290   | 2580  | 3870  | 5160  | 6450  | 7740  | 9030  | 10320 | 11610 | 12900 | 14190 | 15480 |
| 3             | 1935   | 3870  | 5805  | 7740  | 9675  | 11610 | 13545 | 15480 | 17415 | 19350 | 21285 | 23220 |
| 4             | 2580   | 5160  | 7740  | 10320 | 12900 | 15480 | 18060 | 20640 | 23220 | 25800 | 28380 | 30960 |
| 5             | 3225   | 6450  | 9675  | 12900 | 16125 | 19350 | 22575 | 25800 | 29025 | 32250 | 35475 | 38700 |
| 6             | 3870   | 7740  | 11610 | 15480 | 19350 | 23220 | 27090 | 30960 | 34830 | 38700 | 42570 | 46440 |
| 7             | 4515   | 9030  | 13545 | 18060 | 22575 | 27090 | 31605 | 36120 | 40635 | 45150 | 49665 | 54180 |
| 8             | 5160   | 10320 | 15480 | 20640 | 25800 | 30960 | 36120 | 41280 | 46440 | 51600 | 56760 | 61920 |
| 9             | 5805   | 11610 | 17415 | 23220 | 29025 | 34830 | 40635 | 46440 | 52245 | 58050 | 63855 | 69660 |
| 10            | 6450   | 12900 | 19350 | 25800 | 32250 | 38700 | 45150 | 51600 | 58050 | 64500 | 70950 | 77400 |

**CHART NOTES:**

1. USE CHART TO DETERMINE REQUIRED CONDUCTOR CROSS-SECTIONAL AREA (MILS) BASED ON NUMBER OF LIGHTS AND DISTANCE FROM POWER SOURCE.
2. SELECT WIRE GAUGE BASED ON REQUIRED MILS.
3. CHART VALID FOR 100-WATT LUMINARIES ONLY.
4. CHART VALID FOR 120-VOLT CIRCUITS ONLY.
5. VOLTAGE DROP CALCULATIONS REQUIRED FOR STREET LIGHT CIRCUITS WITH LUMINAIRE WATTAGES GREATER THAN 100-WATTS, OR FOR 240-VOLT SYSTEMS.

| MILS  | SIZE AWG |
|-------|----------|
| 10380 | 10       |
| 16510 | 8        |
| 26240 | 6        |
| 41740 | 4        |
| 52620 | 3        |
| 66360 | 2        |
| 86690 | 1        |



**CITY OF OROVILLE**  
 DEPARTMENT OF PUBLIC WORKS

STANDARD FOR  
 STREET LIGHTS – GENERAL NOTES

|                                     |                         |                          |
|-------------------------------------|-------------------------|--------------------------|
| DRAWN BY:<br>SG                     | <b>RICK WALLS, P.E.</b> | SHEET<br>3 OF 4<br>ST-29 |
| DIRECTOR OF PUBLIC WORKS DEPARTMENT |                         |                          |

# STREET LIGHT POLES AND MAST ARMS

| Street Type | H (ft.) | A (ft.) | HAPCO (Pole & Mast Arm)   | VALMONT  |                                    |
|-------------|---------|---------|---|--|------------------------------------|
|             |         |         |   | (Pole)   | (Mast Arm)                         |
| Local       | 25      | 6       | RTA25D6B4M16-01 (21-285)<br>0.188" wall thickness, satin finish | 2208-40606T4 SBF<br>0.188 " wall thickness, satin finish (SBF) | 1MA0632S SBF<br>satin finish (SBF) |
|             |         |         | RTA30D8B4M16-01 (21-585)<br>0.188" wall thickness, satin finish | 2708-45806T4 SBF<br>0.188 " wall thickness, satin finish (SBF) | 1MA0632S SBF<br>satin finish (SBF) |
| Collector   | 30      | 8       | RTA30D8B4M18-01 (21-587)<br>0.188" wall thickness, satin finish | 2708-45806T4 SBF<br>0.188 " wall thickness, satin finish (SBF) | 1MA0832S SBF<br>satin finish (SBF) |
|             |         |         | RTA35D8B4M18-01 (21-885)<br>0.250" wall thickness, satin finish | 3208-45808T4 SBF<br>0.250 " wall thickness, satin finish (SBF) | 1MA0832S SBF<br>satin finish (SBF) |
| Arterial    | 35      | 8*      |   |  |                                    |

\* Larger length mast arms may be required.  
 H = Luminaire Mountin Height  
 A = Luminaire Mast Arm Length } See ST-22

## LUMINAIRES

| Street Type | Luminaire Wattage | GE Model No.          |
|-------------|-------------------|-----------------------|
| Local       | 100               | M2RC 10 S O A 2 G MC3 |
|             | Collector         | 150                   |
| Arterial    | 200 *             | M2RC 20 S O A 2 G MC3 |

\* Higher Wattage may be required.



|  |  |                          |
|--|--|--------------------------|
| CITY OF OROVILLE<br>DEPARTMENT OF PUBLIC WORKS |  |                          |
| STANDARD FOR<br>STREET LIGHTS – GENERAL NOTES  |  |                          |
| DRAWN BY:<br>SG                                | RICK WALLS, P.E.<br><small>DIRECTOR OF PUBLIC WORKS DEPARTMENT</small> | SHEET<br>4 OF 4<br>ST-29 |