

RULES AND SPECIFICATIONS FOR ELECTRIC SERVICE

Revised: 2011

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SECTION 1 FOR ALL CUSTOMERS

1.0 GENERAL CONDITIONS

The purpose of this service manual is to identify the responsibilities and safety requirements of both the Electric Provider, *City Water Light and Power (CWLP)*, and the electric customer. For the purpose of this Service Manual, all electrical service terminology will be used as defined by the City of Springfield, Illinois Code of Ordinances, Title V: - Public Works, Chapter 50, Electric Utility. This Service Manual shall govern the installation requirements for all new and upgraded electric service construction. Modifications to existing electric services requires that the customer upgrade equipment to be in compliance with this Service Manual and the current edition of the National Electric Code (NEC). Existing equipment should be maintained in accordance with the existing NEC code in effect at the time of installation.

In the interest of safety, only a qualified and licensed electrical contractor should handle electric installations.

1.01 CWLP OFFICES

The CWLP Electric Department maintains offices at:

Office	Location	Phone
Municipal Center West	7 th & Monroe Streets	(217) 789-2000
Electric Dispatch Center	1008 East Miller Street	(217) 789-2121
Electric Metering Department	1600 South Groth Street	(217) 757-8520
Transmission and Distribution Engineering	1008 East Miller Street	(217) 321-1350 ElecEng.Rep@cwlp.com
Electric Service Center	1600 South Groth Street	(217) 757-8520
Dallman Generating Station	3100 Stevenson Drive	(217) 757-8670
Commercial Office	300 S. 7 th street Municipal Center West, Rm 101	(217) 789-2233

1.02 CWLP ELECTRIC SERVICE AREA

Electric service will be provided to all customers within the City limits of, and generally future areas when annexed to, the City of Springfield, and outside of the City limits only to the south in its defined service area. This service area is roughly defined as the following:

On the East, as being south of State Route 29 to the South Fork of the Sangamon River, west of the river to County Road 5S, north of 5S, west of 4.25 E. north of 6S to the marginal land of Lake Springfield owned by the City,

On the West, as being south of County Road 1AS to Veterans Parkway, east of Bradforton Road to the marginal land of Lake Springfield. The incorporated villages of Leland Grove, Jerome and Southern View are inside this service area. CWLP Service Territory Map

1.03 ANNEXATION

Any customer property located outside the CWLP service area may potentially obtain electric service from CWLP by completing the annexation process. The process for annexation is defined in the City Code of Ordinances, Title XV: - Land Usage, Chapter 156, Annexations and Annexation Agreements. The Springfield City Council must approve all annexations. Upon approval, CWLP will negotiate the transfer of electric facilities with the serving utility, if applicable. When an agreement is reached with the original serving utility and the transfer of facilities is completed, the customer will be transferred to and served by CWLP. The annexation process typically requires six to nine months for completion.

1.04 CWLP ELECTRIC LINE EXTENSION

Where a customer requires CWLP to extend its facilities for more than two normal span lengths outside the corporate limits, a deposit for the additional cost of such extension shall be made by the customer. A normal span length is defined to be a span of 200 feet. The deposit will be returned to the customer at the rate of twenty-five percent of the monthly billing, paid semi-annually, over a period not to exceed ten years. If CWLP attaches an additional customer to this line extension, the cost will then be prorated for the customer involved and approximate refunds on deposit will be made accordingly. Such transactions shall be handled by written contracts between the City and the customer. The contract for a

line extension is written and maintained by the Electric T&D Engineering Offices. No variances to the wording in the contract will be allowed without the approval of the CWLP Electric Department, the Springfield City Council, and the Mayor of Springfield.

If the extension is required on private property, it shall be the responsibility of the customer to provide CWLP with the necessary easements to provide electric service.

1.05 APPLICATION FOR SERVICE

- A. All customers requiring electric service from CWLP must follow and comply with the policies and procedures as listed in this service manual.
- B. All customers should familiarize themselves with Section 1. Residential customers should also familiarize themselves with Section 2 and general service customers with Section 3.
- C. Residential customers requiring a NEW electric service at 200A or less should fill out and submit a 200A Residential Load Data Sheet to the customer service department in the Municipal Center West located at 300 S. 7th street, Room 101.
- D. Residential customers requiring an UPGRADE to an existing electric service with an existing CWLP account, with the upgraded service being 200A or less should contact the Electric Service Department at 757-8520.
- E. Residential customers requiring a new or upgraded electric service greater than 200A should fill out and submit an Application For Electric Service to the Electric T&D Engineering department at 1008 E. Miller street.
- F. Any questions or comments on this manual should be addressed to the Electric T&D Engineering Department at 217-757-8520.

1.06 RELOCATION OF CWLP FACILITIES

- A. The cost of relocating any and all CWLP facilities on easements or public rights-of-way shall be borne by the party requesting relocation. Payment shall be made in advance based upon an estimate provided by CWLP engineers. The Electric T&D Engineering Department will provide, at no cost, an initial estimate for the relocation. A non-refundable deposit in the amount of \$50 may be required for the preparation of any multiple engineering estimates to determine the cost of the relocation. The deposit will be applied to the final payment.
- B. If it is not feasible for CWLP to relocate facilities on public rights-of-way, it is not obligated to do so.
- C. Customers requested to relocate existing overhead residential services underground are eligible for a \$150 rebate to be applied to their current electric bill. An approved request for underground service rebate must be on file at the Electric T&D Engineering Department to receive a rebate.

1.07 SUPPLEMENTAL FACILITIES

- A. CWLP will furnish without additional charge those facilities, which are required to service a normal load. A normal load is described as a relatively constant load without large fluctuations at a power factor of not less than 85 percent lagging.
- B. When supplemental facilities or capacity is required either by customer request or to adhere to good engineering practice, the customer shall pay in advance the estimated cost of the installed facilities. CWLP will furnish, install, operate, and maintain these facilities.

1.08 PERMITS

All customers must obtain the necessary permits and inspections from the City of Springfield Building and Zoning Services Department, located at the Municipal Center-West Building, for new wiring work or modifications of older wiring.

CWLP will not make any service connections until the service entrance facilities and main distribution panel(s) are properly installed and inspected, where required. Only CWLP service crews shall make connections between CWLP lines and customer lines.

1.09 NATIONAL ELECTRICAL CODE

Installation of electric conductors and equipment within or on public and private buildings must comply with the current addition of the National Electrical Code (NEC) and all applicable City, County, State and Federal ordinances and regulations. Installation under the exclusive control of electric utilities for the purpose of communications, metering, generation, transformation, transmission, or distribution of electric energy is not covered by the NEC, but instead by the National Electric Safety Code (NESC). A Complete listing of installations covered by the NEC can be found in the NEC codebook, Article 90-2. In the event of a conflict of regulations, the strictest standard shall apply.

1.10 SAFETY

All customers and their representatives should utilize safe operating procedures and maintain minimum safety clearances as specified in the National Electrical Safety Code, the National Electrical Code, and Occupational Safety and Health Administration (OSHA) regulations.

1.11 VOLTAGE REGULATION

CWLP shall supply the customer with electric service, which shall normally be within the following ranges:

Nominal Voltage	Minimum Voltage	Maximum Voltage
120 V	113V	127 V
208 V	196 V	220 V
240 V	226 V	254 V
480 V	452 V	508 V

Electric service shall not exceed the minimum or maximum limits for periods of not longer than one minute, measured at the customer's meter base in the correct scale.

1.12 METERING

A. METER LOCATION

1. All meters shall be located in a place safe from damage by vehicles, people or swinging doors and windows. The centerline of a single meter or top meter of a multiple gang arrangement shall be installed a minimum of five (5) feet and a maximum of six (6) feet above final grade.
2. All meters shall be unobstructed and made accessible to CWLP meter readers and service department employees for reading and maintenance at all times. Meters shall always be located outside for residential homes, mobile homes and residential or commercial complexes of three stories or less.
3. All meter locations for commercial buildings are subject to approval by the Electric T & D Engineering Department. All meter locations for residences are subject to approval by the Electric Service Department.

B. METER WIRING

1. Questions concerning the wiring of meter bases should be directed to the Electric Meter Department.

2. For all socket type meters, the load side connections will always be made to the bottom connectors of the meter base and the line side connections will always be made to the top connectors of the meter base.
3. Please see diagrams 2,5,5a,8,11,12, and 13 for a pictorial representation.

C. USE OF METERS

1. *No CWLP customers shall sub-meter his electrical energy for the purpose of billing such electrical energy. All meters used for electric energy billing purposes shall be owned and maintained, read and billed by CWLP. Sub metering is defined as the metering of electrical energy that has already been metered.*
2. CWLP shall seal or lock all of its meters, demand reset arms, and current transformer cabinets. It is illegal for anyone to tamper with any CWLP meter or metering equipment, break any seal or attempt to avoid payment of electrical energy.
3. All electrical energy for other than residential use shall be billed on a general service rate. Residential use shall be defined as providing living accommodations in a unit, which shall contain a minimum of a kitchen, bedroom and bathroom. All residences shall be limited to one meter per residential unit. All other additional meters shall be billed at a general service rate. All common areas of apartment or condominium complexes shall be billed on a general service rate. All garages metered separately not being utilized as residences shall be addressed in the supplemental facilities section and shall be billed on a general service rate.
4. No foreign attachments shall be made to CWLP metering equipment unless specifically approved in writing by the Electric T & D Engineering Department.

5. Where a customer requests and CWLP agrees to provide primary metering, the customer shall provide, install and maintain all primary equipment on the load side of the primary metering equipment. The customer should contact the Electric T & D Engineering Department, for details if considering primary metering.
6. Any customer requiring special metering, such as pulse initiators or harmonic metering should contact the Commercial Office for pricing information and availability.

1.13 NET METERING

Net metering service means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.

CWLP customers with a renewable energy generator of 25kW or less are eligible for a net metering service upon request. Any renewable energy generator over 25kW will be subject to CWLP engineering review and approval.

The electric customer's generating facility must abide by CWLP's Interconnection requirements in Section 1.21.

The customer will be required to enter into a contract for a Net Metering service. The contract must be executed by the customer and the Superintendent of T&D Engineering. Net Metering Contract

Energy generated by the customer in excess of the energy required by the customer's load during a billing period shall be carried forward to the next billing period. Upon closing of an account the customer shall surrender to CWLP any excess energy. Under no circumstances will there be payments or credit transfers for excess energy.

Any costs CWLP incurs associated with the net metering program shall be borne by the participants in the net metering program. These costs will be billed to such customers on a monthly basis.

Any additional facilities necessary to accommodate Net Metering customers may require supplemental facility charges per section 1.07.

1.14 IDENTIFICATION

CWLP meter readers and service crews will show proper identification upon demand by the customer. The customer should deny admittance to anyone not possessing a proper identification card.

1.15 DIGGING AND EXCAVATING

Any customer digging or excavating in an area developed with underground electrical service shall contact the Joint Utility Locating Information for Excavators (JULIE) at 1-800-892-0123. This contact should be made 48 hours in advance, excluding holidays and weekends, of any activity. Anyone who does not contact JULIE and who damages any underground facilities shall pay the cost to repair or replace the damaged facilities.

1.16 LANDSCAPING AROUND ELECTRICAL EQUIPMENT

- A. CWLP may remove any trees or branches on any street, avenue, alley or easement in any way obstructing or interfering with the installation, maintenance, or operation of any portion of the electrical system.
- B. CWLP may also remove any trees or branches obstructing or interfering with maintenance or operation of electrical services.
- C. To maintain a working clearance, do not plant trees or shrubs within six feet of the opening side of the transformer.

1.17 EASEMENTS

Easements are strips of ground dedicated for the necessary use of the public. Any utility has the right to install, maintain, and keep in good operating condition equipment for the necessary welfare of the public. On those easements, CWLP will have the following rights:

- A. To remove fences on the easements and CWLP will restore the fences to their original condition.
- B. To dig where it is necessary and CWLP will restore the ground to its original condition.

- C. To trim all trees overhanging the easements without destroying the trees.
- D. To remove a tree in the easement if it interferes with CWLP facilities and CWLP may be required to make restitution of the tree.
- E. No permanent structures are allowed on the easements.
- F. CWLP is permitted access onto the easement to install and maintain their facilities, and CWLP is subject to pay for any damages done to the property.
- G. If a customer denies CWLP an easement that is required to provide electrical service, then the customer will become responsible for all additional costs incurred to provide service.

1.18 SPECIAL CONTRACTUAL SERVICES

From time to time the City may enter into special contractual agreements where the nature of the electric service requires it to do so. Examples of this type of service would be street lighting for other municipalities, highway interchange lighting, security lighting, ESDA sirens, traffic controls, etc.

1.19 USE OF PORTABLE GENERATORS

Portable generating sources may only be connected through an approved disconnect switch. This switch must positively disconnect the utility feed before connecting the generator to the customer load. Failure to follow this procedure can result in injury or death to CWLP personnel and can lead to severe damage of the generator. Contact the Electric T&D Engineering Department to review the installation procedure.

1.20 USE OF STATIONARY GENERATORS

The installation of a customer owned, stationary generator is permitted only after consultation with the Electric T&D Engineering Department. CWLP will provide the customer requesting to install a stationary generator the specifications to make the installation. At least the following conditions shall be met before any such generator is approved:

- A. The generator is connected to the customer's facilities via specified equipment that will not allow the generator to energize any CWLP facilities.

- B. CWLP will inspect the installation after completion and before any attempt is made to run the generator.
- C. The customer must complete the Customer Owned Generator form and return to the T&D Engineering department at 1008 E. Miller street.

1.21 INTERCONNECTION REQUIREMENTS OF ON-SITE GENERATING FACILITIES

Interconnection of on-site generating facilities means service to an electric customer under which the generating facilities on the customer's premises shall be synchronized to CWLP distribution facilities. If the customer qualifies under this section but does not qualify under the Net Metering section 1.13, any excess energy delivered to the CWLP system shall be surrendered to CWLP with no payment to the customer. CWLP will install a meter with net metering capability and the customer will pay for any costs associated with the meter change.

The aggregate total generation at a single customer site will be less than 1 MVA.

All systems shall comply with NEC Article 690, IEEE 929, IEEE 1547 and UL 1741.

Customers will be required to complete an Application for Interconnection and enter in to a contract for interconnection of generation facilities.

Systems below 250 kVA capacity shall comply with IEEE 1547 section 5.5, Periodic Interconnection Tests. All interconnection-related protective functions and associated batteries shall be periodically tested at intervals specified by the manufacturer, system integrator, or the authority that has jurisdiction over the distributed resource (DR) interconnection, or all tests shall be performed at a minimum of every 3 years. Periodic test reports or a log for inspection shall be maintained. These reports shall be submitted to the CWLP T&D Engineering department every three years.

Systems 250 kVA and above shall perform all interconnection-related protective functions and associated batteries on a yearly basis. All test reports shall be submitted to the CWLP T&D Engineering department after completion of the yearly testing.

The DR shall comply with the power disturbances requirements of section 1.21.

Customers with three phase service are required to use generators that are three phase.

Per the Application for Interconnection the customer agrees that CWLP shall inspect and approve the installation. CWLP shall witness an operational test run of the interconnected facilities. CWLP shall issue a Permission to Interconnect letter once all requirements are met. The customer shall NOT connect generating facilities to the CWLP distribution system until the Permission to Interconnect letter is received.

1.22 POWER DISTURBANCES

Please refer to IEEE Standard 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems, for information on power disturbances and isolation transformers. Any power disturbance as defined in IEEE 519, caused by a customer, may result in the installation of an isolation transformer at the customer's expense.

SECTION 2 FOR ALL RESIDENTIAL CUSTOMERS

2.01 INTRODUCTION

The regulations in this section apply to all residential customers. A residential customer is defined as a customer receiving electrical service from CWLP to a single family or duplex residential building unit as defined in section 1.12.C.3. Individual residential units within an apartment or condominium building will be billed on residential rates and are addressed in the General Service section of this manual. Any exceptions to these regulations must be approved by the Electric T & D Engineering Department and are subject to supplemental facilities charges.

2.02 SERVICE APPLICATION PROCEDURE

A. TEMPORARY SERVICE

1. The customer or their representative shall apply for temporary service with a CWLP Service Representative located at Room 101 Municipal Center West. All aspects of temporary service concerning deposits are covered in City Code provisions for Temporary Service.

2. The customer or their representative is responsible for providing a meter base meeting CWLP Specifications for all self-contained metering applications. For instrument rated applications the customer shall purchase an instrument rated meter base from the Electric Metering Department at 1600 S. Groth street.
3. CWLP will install temporary service upon payment of temporary service charges to the Service Representative and notification by the customer to the Service Department when service is ready to be energized. A minimum of 48 hours should be allowed for scheduling. No service will be energized that does not comply with the minimum standards established in Section 5 of this service manual. Customers not ready to be energized when the Service Crew arrives may experience additional fees and delays for rescheduling.

B. PERMANENT SERVICE

1. A customer can apply for permanent service by meeting with a CWLP Service Representative, Room 101 Municipal Center West.
2. The Service Representative will evaluate their requirements, size the meter base, supply the customer with a service plan, request and accept the customer's service deposit, where applicable.. The Service Representative shall also submit the application for permanent service to the Service Department. An approved 200A Residential Load Data Sheet must be on file to receive a permanent service.
3. The customer or their representative is responsible for providing a meter base meeting CWLP Specifications for all self-contained metering applications. For instrument rated applications the customer shall purchase an instrument rated meter base from the Electric Metering Department at 1600 S. Groth street.
4. CWLP will energize a permanent service upon notification by the customer to the Electric Service Department when service is ready to be energized. A minimum of 48 hours should be allowed for scheduling. No service will be energized that does not comply with minimum standards

established in this manual. Customers not ready to be energized when the Service Crew arrives may experience additional fees and delays for rescheduling.

C. ELECTRIC SERVICE UPGRADE

1. A customer can apply for an upgrade of electric service by meeting with a CWLP Service Representative, Room 101 Municipal Center West.
2. The Service Representative will evaluate their requirements, size the meter base, supply the customer with a service plan, request and accept the customer's service deposit, where applicable. The Service Representative shall also submit the application for upgrade service to the Electric Service Department.
3. The customer or their representative is responsible for providing a meter base meeting CWLP Specifications for all self-contained metering applications. For instrument rated applications the customer shall purchase an instrument rated meter base from the Electric Metering Department at 1600 S. Groth street.
4. CWLP will energize an upgraded service upon notification by the customer to the Service Department when service is ready to be energized. A minimum of 48 hours should be allowed for scheduling. No service will be energized that does not comply with minimum standards established in this manual. Customers not ready to be energized when the Service Crew arrives may experience additional fees and delays for rescheduling.

2.03 GENERAL REQUIREMENTS

A. METERING

1. The meter shall always be placed outside on the building and never in a carport, breezeway or other area that might be enclosed at some future date. The centerline of a single meter or top meter of a multiple gang arrangement shall be installed a minimum of five (5) feet and a maximum of six (6) feet above final grade level. All meter locations for residences are subject to final approval by the Service Department.
2. For all socket type meters, the load side connections will always be made to the bottom connectors of the meter base and the line side connections will always be made to the top connectors of the meter base. (See Figures 2 and 5).

B. SERVICE ENTRANCE CONDUCTORS AND CONDUIT

1. The customer shall consult the latest edition National Electrical Code for size and type of wire and conduit approved for service entrance use.
2. The service entrance conductors must be continuous and without splices or joints from the meter base to the main distribution equipment within the building.

C. SERVICE ENTRANCE EQUIPMENT

1. Any main disconnect switch or panel used for service entrance equipment shall be approved and listed by the Underwriter's Laboratory for such use.
2. Unless Electrical Inspectors from the City of Springfield Department of Building and Zoning authorities grant special permission, the main disconnect switch or panel shall be installed at a readily accessible location either outside of a building or structure or inside nearest the point of entrance of the service conductors but not exceeding (10) feet from the point of entrance. Service disconnecting means shall not be installed in bathrooms.

D. GROUNDING REQUIREMENTS

1. All customers must ground the neutral conductor at their service entrance according to the provisions in Figures 2 and 5.
2. For a self-contained meter base rated at 200 amps or less and for instrument-rated meter bases, grounding shall be accomplished by attaching one end of a copper grounding electrode conductor sized per NEC Table 250-66 but not less than #6 to the meter base neutral lug and the other end properly clamped to a minimum 5/8 inch by eight foot copper or galvanized steel ground rod driven in the ground external to the building. All ground wire running above the ground and outside of the building shall be encased in conduit.
3. For a self-contained meter base rated at more than 200 amps, consult the grounding requirements in the current edition of the NEC.

2.04 OVERHEAD SERVICE REQUIREMENTS

A. RESPONSIBILITIES

1. The customer shall be responsible for providing, installing and maintaining the conduit, weatherhead, ground and enough cable to extend at least two (2) feet beyond the weatherhead. The customer shall also be responsible for installing the meter base and equipment for attaching the CWLP service conductor on the building.
2. CWLP will supply the house knob (for siding) to be installed during construction by the customer. Any other attachment points will be supplied and installed by the customer. For houses with siding, a deadend screw hook or house knob shall be attached to a building stud, not the siding.
3. CWLP will install the overhead service drop and a watt-hour meter and make the final connection between this service drop and the customer's service entrance conductors.

B. INSTALLATION REQUIREMENTS (SEE FIGURE 2)

1. Aluminum or nonmetallic conduit or service entrance cable will be permitted for service entrance risers which do not require the service to be attached to the riser.
2. Service entrance risers which extend above the roof must be properly guyed, galvanized steel; aluminum will not be permitted. For guying requirements contact the Electric Service Department.

C. CLEARANCE FOR OVERHEAD SERVICE (SEE FIGURES 3 AND 4)

The following clearances are defined for specific instances as per the latest addition of the NEC. Please contact the Electric T&D Engineering Department to review any variance.

1. Clearance above Roofs.

As per the NESC 234C3 d(1), Service drop conductors, including drip loops, shall not be readily accessible, and when not in excess of 750 volts, they shall have a clearance of not less than eight (8) feet from the highest point of roofs or balconies over which they pass.

a) Exception # 1

As per the NESC 234-C3 d (1) exception 1: Where the voltage between conductors does not exceed 300 volts and the roof is not readily accessible, the clearance may not be less than (3) feet. A roof is considered readily accessible to pedestrians if it can be casually accessed through a doorway, window, ramp, stairway or permanently mounted ladder by a person, on foot, who neither exerts extraordinary physical effort nor employs special tools or devices to gain entry. A permanently mounted ladder is not considered a means of access if its bottom rung is (8) feet or more from the ground or other permanently installed accessible surface.

b) Exception # 2

As per the NESC 234-C3 d(1) exception 2: Where a roof is not readily accessible and a service drop with a voltage between conductors of 300 volts or less passes over a roof to terminate at a (through-the-roof) raceway or approved support located not more than 4 feet, measured horizontally from the nearest edge of the roof, the clearance above the roof may be maintained at not less than (18) inches for a horizontal distance of (6) feet from the raceway or support, and may be maintained at not less than (3) feet for the remainder of the horizontal distance that the cable or conductor passes over the roof.

2. **Vertical Clearance from Ground.**

Service drops shall have the following minimum clearance from final grade:

Ten (10) Feet: at the electrical service entrance to buildings at the lowest point of the drip measured from final grade or other accessible surface only for service drop cables supported on or cabled together with a grounded bare messenger and limited to 150 volts to ground.

Ten and one-half (10-1/2) Feet - at the electrical service entrance to buildings at the lowest point of the drip loop measured from final grade or other accessible surface only for service drop cables supported on or cabled together with a grounded bare messenger and limited to 300 volts to ground.

Twelve (12) Feet:

- a) Over residential driveways for service drop cables that are supported on or cabled together with an effectively grounded bare messenger or neutral, limited to 150 volts to ground.
- b) Over spaces and ways subject to pedestrians or restricted traffic only for insulated, nonshielded supply cables limited to 750 volts to ground supported on and cabled together with an effectively grounded bare messenger. Spaces and ways subject to pedestrians or restricted

traffic only are those areas where riders on horseback, vehicles, or other mobile units exceeding (8) feet in height, are prohibited by regulation or permanent terrain configurations or are otherwise not normally encountered nor reasonably anticipated.

Twelve and one half (12.5) Feet - over residential driveways for insulated service drop cables limited to 300 volts to ground.

Fifteen (15) Feet - Over or running along alleys, driveways (see above requirements for lower voltages), or parking lots for insulated, nonshielded supply cables limited to 750 volts to ground supported on and cabled together with an effectively grounded bare messenger.

Eighteen (18) Feet - over public streets, alleys, roads, parking areas subject to truck traffic, driveways on other than residential property, and other than land traversed by vehicles such as cultivated, grazing, forest and orchard.

D. CLEARANCE FROM BUILDINGS

A. Horizontal for insulated, nonshielded supply cables limited to 750 volts to ground supported on and cabled together with an effectively grounded bare messenger.

Five (5) Feet –

I. To walls, projections and guarded windows.

a) Exception #1

Where building, sign, chimney, antenna, tank, or other installation does not require maintenance such as painting, washing, changing of sign letters, or other operations that would require persons to work or pass between wires, conductors, cables or unguarded rigid live parts and structure, the clearance may be reduced to three (3) feet.

b) Exception #2

Where available space will not permit this value, the clearance may be reduced to three (3) feet provided the wires, conductors, or cables, including splices and

taps, and unguarded rigid live parts have a covering that provides sufficient dielectric strength to limit the likelihood of a short circuit in case of momentary contact with a structure or building.

II. *To unguarded windows.*

Exception #1 – Windows not designed to open may have the clearances permitted for walls and projections.

III. *To balconies and areas readily accessible to pedestrians.*

A roof, balcony, or area is considered readily accessible to pedestrians if it can be casually accessed through a doorway, ramp, window, stairway, or permanently mounted ladder by a person on foot who neither exerts extraordinary physical effort nor employs special tools or devices to gain entry. A permanently mounted ladder is not considered a means of access if its bottom rung is 8 feet or more from the ground or other permanently installed accessible surface.

B. Vertical for insulated, nonshielded supply cables limited to 750 volts to ground supported on and cabled together with an effectively grounded bare messenger.

3 and one half (3-1/2) Feet-

I. Over or under roofs or projections not readily accessible to pedestrians or above railings, walls, or parapets around balconies or roofs. A roof, balcony, or area is considered readily accessible to pedestrians if it can be casually accessed through a doorway, ramp, window, stairway, or permanently mounted ladder by a person on foot who neither exerts extraordinary physical effort nor employs special tools or devices to gain entry. A permanently mounted ladder is not considered a means of access if its bottom rung is 8 feet or more from the ground or other permanently installed accessible surface.

Eleven (11) Feet-

I. Over or under balconies and roofs readily accessible to pedestrians. A roof, balcony, or area is considered readily accessible to pedestrians if it can be casually accessed through a doorway, ramp, window, stairway, or permanently mounted ladder by a person on foot who neither exerts extraordinary physical effort nor employs

special tools or devices to gain entry. A permanently mounted ladder is not considered a means of access if its bottom rung is 8 feet or more from the ground or other permanently installed accessible surface.

II. *Over roofs accessible to vehicles, but not subject to truck traffic.* Trucks are defined as any vehicle exceeding 8 feet in height.

Sixteen (16) Feet-

Over roofs accessible to truck traffic. Trucks are defined as any vehicle exceeding 8 feet in height.

4. Clearance from Swimming Pools.

Service drops shall not be installed over swimming pools or that area within ten (10) feet of the water's edge, any diving boards, and towers. In addition, service drops where voltage from the energized conductor to ground *does not exceed 750 volts* shall have the following minimum clearance:

Twenty-Two and one-half (22.5) Feet – in any direction from the water level, edge of pool, base of diving platform, or anchored raft.

Service drops in excess of 750 volts and less than 22,000 volts:

Twenty-five (25) Feet - in any direction to the water level or edge of the water's surface.

Seventeen (17) Feet - in any direction to diving platform or tower

In areas where electrical services exist, swimming pools shall be installed in such a manner as to maintain the above clearances.

5. Supports Over Buildings.

Where practicable, conductors passing over a building shall be supported on structures, which are independent of the building. Where necessary to attach conductors to the roof, they shall be supported on substantial structures.

6. Clearance From Buildings

No signs, chimneys, billboards, radio and television antennas, tanks, parking lot lights, and other installations not classified as buildings or bridges shall be installed closer than ten (10) feet horizontally from any CWLP primary feeder line unless ten (10) feet vertical clearance can be maintained.

2.05 UNDERGROUND RESIDENTIAL SERVICE REQUIREMENTS

A. RESPONSIBILITIES

1. The customer shall be responsible for providing, installing and maintaining all conduit, conductor and devices from the customer's load to the final connection point with CWLP facilities and for installing the meter base. Contact the Electric T&D Engineering Department to establish a connection point to CWLP facilities.
2. CWLP will supply and install the service cable end connectors at the distribution pedestal or transformer. CWLP maintains the right to limit the number and size of the conductors entering these facilities. Where the customer's service is of a greater number of cables or larger size of conductor than is acceptable to CWLP, the customer must provide and install a service termination enclosure acceptable to CWLP. CWLP will install secondary conductors from its distribution pedestal or transformer to the customer's termination enclosure and connect to the customer's service conductors.
3. CWLP will install the meter and make the final connection between the CWLP facilities and the customer's service conductors.

B. INSTALLATION REQUIREMENTS (SEE FIGURES 5 AND 5A)

1. Underground residential services of 320 amps or less shall be installed as shown in Figure 5. Service conductors must be encased in conduit from the meter base to a point of eighteen (18) inches below final grade level. This conduit may be continued to the CWLP facilities or may be terminated with a plastic bushing, and cable, NEC approved for direct bury, continued to CWLP facilities. In either case

the service shall be installed a minimum of twenty-four (24) inches below final grade.

2. The service conductors at the distribution pedestal or pad mount transformer shall be flexible and enter through the opening in the bottom of the pedestal or concrete pad.
3. Where a customer desires underground lines, he must comply with all other provisions of this section.
4. Where a customer can be provided underground service from an overhead distribution line, the customer must supply enough service cable to reach the CWLP secondary distribution conductors on the pole. Consult the Service Department, to determine this height. CWLP will install the customer's service cable and conduit on the pole and make the connection to the secondary conductors.
5. If two or more customers can be served underground from the same pole, CWLP may at the discretion of the Electric T&D Engineering Department, set a distribution pedestal at the base of the pole. The customers will then be required to provide only enough cable to allow connection to the CWLP conductors within the pedestal.

SECTION 3 FOR ALL GENERAL SERVICE CUSTOMERS

3.01 INTRODUCTION

The regulations in this section apply to all customers not covered in the residential section of this manual. Any exceptions to these regulations must be approved by the Electric T & D Engineering Department and may be subject to supplemental facilities charges.

3.02 SERVICE APPLICATION PROCEDURE

A. TEMPORARY SERVICE

1. The customer or their representative shall apply for temporary service from the Electric T & D Engineering Department. All aspects of temporary service concerning costs and necessary deposits are covered in the Temporary Service provisions of the City of Springfield Code of Ordinances, Chapter 50. Where the required temporary service exceeds those items covered in the City Code, the Engineering Department will design the necessary temporary service facilities and notify the customer of the estimated cost.
2. The customer or their representative is responsible for providing a meter base meeting CWLP Specifications for all self-contained metering applications. For instrument rated applications the customer shall purchase an instrument rated meter base from the Electric Metering Department at 1600 S. Groth street.
3. CWLP will install temporary service upon payment of temporary service charges to the Electric T&D Engineering Department and notification by the customer to the Service Department when service is ready to be energized. A minimum of 48 hours should be allowed for scheduling. No service will be energized that does not comply with the minimum standards established in Section 5 of this manual. Customers not ready to be energized when the Service Crew arrives may experience additional delays for rescheduling.

B. PERMANENT SERVICE

3. The customer shall supply the Electric T&D Engineering Department, with a completed Application for Commercial Service form, (See Figure 6), and an overall plot plan denoting the location of the structure(s) on the property and desired locations of electrical service entrance.
4. The Electric T&D Engineering Department will evaluate the Application for Commercial Service form and determine the method of service and inform the customer of his responsibilities in conjunction with the electrical service. A form detailing the Customer and City's Responsibilities will be sent to the customer.
5. The Electric T&D Engineering Department will issue an approved General Service Metering Memo (See Figure 7), and supply the customer with any other necessary data (transformer pad drawings, conduit specifications, etc.).
6. The customer or their representative is responsible for providing a meter base meeting CWLP Specifications for all self-contained metering applications. For instrument rated applications the customer shall purchase an instrument rated meter base from the Electric Metering Department at 1600 S. Groth street.
7. CWLP will complete its portion of the project upon notification by the customer to the Electric T&D Engineering Department that the facilities for which he is responsible have been installed.
8. The customer shall apply for permanent service from the Service Representative located in Room 105 Municipal Center West. The customer shall make a service deposit where applicable. An approved General Service Metering Sheet must be on file to receive permanent service.
9. CWLP will energize the permanent service upon notification by the customer to the Electric T&D Engineering Department that the service is ready to be energized. A minimum of 48 hours should be allowed for scheduling. No service will be energized that does not comply with minimum standards established in this manual. Customers not ready to be

energized when the Service Crew arrives may experience additional delays for rescheduling.

3.03 GENERAL REQUIREMENTS

CWLP will provide 60-cycle alternating current (AC) electrical energy in the following nominal voltages subject to the following minimum connected load requirements. Installations not meeting the minimum load requirements will be subject to additional costs. Costs to the customer will include the actual cost of equipment, labor, and materials prorated against the percentage of the minimum load.

Pole Mounted Transformers	Minimum Connected Load
120/240 volt single phase 3-Wire	No minimum
120/240 volt three phase 4-Wire	35 KW
120/208 volt three phase 4-Wire	75 KW
277/480 volt three phase 4-Wire	75 KW

Pad Mounted Transformers	Minimum Connected Load
120/240 volt single phase 3-Wire	No minimum
120/208 volt three phase 4-Wire	75 KW
277/480 volt three phase 4-Wire	150 KW

All of the secondary voltages mentioned above are not available in every section of the City. Anyone planning a new service should first check with the Electric T&D Engineering Department. Any voltages or load requirements not complying with these regulations are subject to approval by the Electric T&D Engineering Department and may be subject to supplemental facilities charges. One service voltage/type will be provided for multiple occupancy buildings of up to six (6) units. Buildings of more than six (6) units may be provided additional services at the discretion of the Electric T&D Engineering Department.

A. METERING

1. All meters shall be located in a place safe from damage by vehicles, people or swinging doors and windows. The centerline of a single meter or top meter of a multiple gang arrangement shall be installed a minimum of five (5) feet and a maximum of six (6) feet above final grade. Multiple gang arrangements shall be limited to not more than three meters vertically for kWh meters and two meters vertically for demand meters. All meters shall be unobstructed and made accessible to CWLP Meter Readers and CWLP Metering and Service Department employees for reading and maintenance at all times. Meters shall be always located outside for complexes of three stories or less. All meter locations for general service buildings are subject to approval by the Electric T&D Engineering Department. Questions concerning wiring of meter bases should be directed to the Electric Meter Department.
2. All self-contained secondary-metering installations shall be limited to a maximum of 240 volts and a maximum of 400 amps. Any service exceeding 240 volts and/or 400 amps shall require installation of instrument transformers. CWLP shall supply the potential transformers and/or current transformers. The customer must supply a suitable weatherproof and lockable instrument transformer cabinet. The instrument transformer cabinet shall be installed on the building exterior and have a minimum NEMA 3R rating.
3. Landlords and/or owners of multiple occupancy buildings and trailer courts shall be responsible to clearly and permanently identify each meter, by stencil or other means, the unit and/or area in their complex that the meter services. All meters must be properly and permanently identified before service will be energized.
 - a. Once electric meter bases have been installed and identified, the owner or a designated representative will be responsible for scheduling a minimum of 48 hours in advance with the Electric Service Department to have the electric meters set. Each electric meter will be verified to ensure proper metering. A lockband will be installed on all electric meters.
 - b. CWLP is not responsible for credit adjustments prior to notification of meters being incorrectly identified. CWLP will upon notification from the landlord/owner correct all billing records to reflect the correct identification of the meters with the units and/or areas they service.

4. For all socket type meters, the load side connections will always be made to the bottom connectors of the meter base and the line side connections will always be made to the top connectors of the meter base. (See Figure 8).
5. For three phase, four wire (3ph, 4W) delta meters, the power leg (high phase) of the service shall be wired to the right side connectors of socket-type meter bases, disconnect switches and panelboards. (See Figure 8).
6. Where instrument transformers are required for metering of electric service they shall be located on the exterior building wall or conduit mast for overhead services. For underground services the instrument transformers may be located around the secondary terminals of the pad mount transformer (if possible) or in an approved enclosure on the building exterior. No CTs or PTs shall be mounted on any CWLP power pole without approval of the Electric T&D Engineering Department.
 - a. In overhead applications when installed on an exterior building wall or conduit mast the instrument transformers shall be securely mounted on a bracket.
 - b. For underground applications when installed on the building exterior, the instrument transformers shall be mounted within a minimum NEMA 3R rated enclosure securely fastened to the building wall and readily accessible to CWLP personnel. The Electric T&D Engineering Department must approve the exact location.
 - c. The polarity dots of the CTs shall always be on the line side of the service.
 - d. For current ratios of 800/5 and above the customer must supply the CT mounting bracket.
 - e. For 120/240-volt 4-wire delta service the CT for the power leg shall be mounted on the bottom of vertical installations and on the right side (as one faces the CTs) for horizontal installations.

CAUTION: *No customer shall ever move, cut the wire to or in any manner break the circuit to a current transformer meter. This causes an over-voltage on the CT which is dangerous to personnel and can damage the current transformer.*

7. If pull boxes are installed before the meter base or CT cabinet, they must be of the type to allow CWLP to install their seal.

B. SERVICE ENTRANCE CONDUCTORS AND CONDUIT

1. The customer should consult the latest edition of the National Electrical Code for size and type of wire and conduit for service entrance use.
2. The service entrance conductors must be continuous and without splices or joints from the meter base to the main distribution equipment within the building.

C. SERVICE ENTRANCE EQUIPMENT

1. Any main disconnect switch or panel used as service entrance shall be listed and approved by the Underwriter's Laboratory for such use.
2. Unless special permission is granted by electrical inspection authorities from the City of Springfield Building and Zoning Department, the main disconnect switch or panel shall be installed not more than ten (10) feet from the point where services enters the building.

D. GROUNDING REQUIREMENTS

1. All meter bases, switchgear, panels, transformers, manholes and other electrical equipment shall be properly grounded according to the provisions of the National Electrical Code (NEC), article 250.

E. MOTOR REQUIREMENTS

1. All three phase motors shall be protected by three (3) over current units (trip coils, relays or thermal cutouts), one in each phase. It shall be the customer's responsibility to assure that all motors are protected according to the National Electrical Code (NEC). CWLP will not be liable for motors, which are damaged due to single phasing of a three phase electrical service or other voltage surge.
2. All motors rated more than 25 horsepower shall have a reduced voltage starter, which meets the approval of the Electric T&D Engineering Department.
3. All three phase equipment, that is sensitive to loss of a single phase, should be protected by a disconnect to automatically remove power on detection of a phase loss.

3.04 OVERHEAD COMMERCIAL SERVICE REQUIREMENTS

A. RESPONSIBILITIES

1. The customer shall be responsible for providing, installing and maintaining the conduit, weatherhead, ground and enough cable to extend at least two (2) feet beyond the weatherhead. The customer is also responsible for installing the meter base and equipment for terminating the CWLP service conductor on the building. Where current transformers are required for metering of the service the customer shall install these transformers as well as provide and install both line and load side mounting lugs and meter wiring conduit from the current transformers to the meter base. Where potential transformers are required for metering of the service the customer shall install those transformers as well as provide and install the meter wiring conduit from potential transformers to the meter base. The location of all CTs and PTs is subject to approval from the Electric T&D Engineering Department.
2. Where instrument transformers are required for metering of the service CWLP will supply the current or potential transformers. CWLP will provide, install and maintain the wiring from the current or potential transformer to the meter base.

3. CWLP will install the overhead service drop and meter and make the final connection between the service drop and the customer's service entrance conductors.

B. INSTALLATION REQUIREMENTS:

1. Metallic or non-metallic conduit may be used for all service entrance risers that do not extend above the roof.
2. Service entrance risers which extend above the roof must be galvanized steel with proper guying. Aluminum or non-metallic is not permitted. For guying requirements contact the Electric Service Department.

C. CLEARANCE FOR OVERHEAD SERVICES. (SEE FIGURES 9 AND 10)

All Overhead service clearances for General Service customers will be the same as for residential customers. Please refer to section 2.04 C for clearance information.

3.05 UNDERGROUND COMMERCIAL SERVICE REQUIREMENTS

A. RESPONSIBILITIES

1. The customer shall be responsible for providing, installing and maintaining all service cable and conduit from CWLP's facilities to the building service equipment. Contact the Electric T&D Engineering Department to determine the connection point to CWLP facilities. Where the customer's service is of a greater number of cables or larger size of conductor than that acceptable to CWLP, the customer must provide and install a service termination enclosure adjacent to the transformer, which is acceptable to CWLP. CWLP will install secondary conductors from its transformer to the customer's enclosure and connect to the customer's service conductors. Where current transformers are required for metering of the service, and are located on the building, the customer shall install those transformers as well as provide and install both line and load side mounting lugs and meter wiring conduit from the current transformers to the meter base. Where potential transformers are required for metering of the service the customer shall install those

transformers as well as provide and install the meter wiring conduit from potential transformers to the meter base.

2. Where service is provided from CWLP overhead, transformer(s) or secondary conductors, the customer shall install 10 feet of galvanized metallic conduit up the CWLP pole, provide CWLP with enough conduit to reach the transformers or secondary, and provide enough service cable to reach CWLP facilities. The customer shall contact the CWLP Electric Service Department to schedule installation and determine which area of the pole the conduit is to be located.
3. Where service is provided from CWLP underground facilities, the customer shall provide CWLP with cable end connectors to be installed on the service cable at the CWLP transformer or distribution pedestal.
4. Where an individual pad mount transformer is to be installed on the customer's property, the customer shall provide, install, and maintain the concrete transformer pad and primary conduit along with any manholes, vaults, or equipment pads located on the customer's property. This type of installation is a continuous run of cable with no possible splice points. This type of installation must be installed according to CWLP standard specifications and is subject to CWLP inspection prior to backfilling the conduit. Where the length of the primary cable requires the installation of manholes, vaults, or any other type of terminating cabinets, CWLP will install and maintain this distribution system up to the point of the last terminating cabinet. The customer shall provide, install, and maintain the primary conduit from this terminating point to the customer owned concrete transformer pad.
5. Where a customer provided transformer vault is required for electrical service, the customer shall design that vault according to the requirements of the NEC, the NESC, and this service manual. The customer shall install all necessary ventilation systems, emergency exit equipment, and secondary cable end connectors.
6. In large buildings, which require the placing of transformers in more than one location, the customer shall install, at his

expense, primary conduit within the building. The Electric T&D Engineering Department will provide specifications for conduit sizing and type.

7. CWLP will provide current or potential transformers. CWLP will provide, install and maintain the wiring from the current or potential transformers to the meter base.
8. CWLP will provide, install, and maintain all primary cable, switchgear, transformers, and terminating cabinets.
9. CWLP will install the meter and make all primary connections as well as the final connection between the customer's service conductors and CWLP facilities.

B. INSTALLATION REQUIREMENTS

1. All underground primary duct, transformers, manholes, vaults and transformer pads shall conform to CWLP and National Electric Code (NEC) specifications. The Electric T&D Engineering Department must approve all plans.
2. **Duct System.** All underground primary duct and direct buried primary cable shall be a minimum cover of 42 inches below ground level. All underground primary duct shall be PVC schedule 40, rigid galvanized or a CWLP T&D Engineering approved equal. All three phase underground primary ducts shall be four- (4) inch shall be encased in three (3) inch concrete envelope. Single-phase primary duct may be direct buried, without concrete encasement, a minimum of 42 inches below ground level with the approval of the Electric T&D Engineering Department. All primary conduit bends shall be galvanized rigid or a CWLP T&D Engineering approved equal with a minimum three- (3) foot radius. The secondary conductors at the pad mount transformer shall be flexible and enter through the opening in the bottom of the concrete pad.
3. **Transformer.** The customer shall consult the Electric T&D Engineering Department for the size of concrete pad, location of pad, minimum distance from the building, and the location of secondary and primary conduit to be installed. The customer should contact the Electric T&D Engineering Department with site plans in order to determine a mutually

agreeable transformer location. All transformers installed in or near driveways or parking lots, which are in danger of vehicular damage, shall be protected by guardrails installed by the customer and approved by CWLP. All transformer pads shall be installed on well-compacted earth or be provided with proper foundations to avoid settling or tilting. Customer is responsible for all costs associated with any damage to transformer bushings or leveling the transformer due to poor compaction methods. CWLP requests that all transformers be located within fifteen (15) feet of parking lots, driveways, or roads to allow access for maintenance. *To maintain a working clearance, no trees, bushes, or shrubs shall be planted within six (6) feet of the front or opening side of a transformer.* CWLP reserves the right to remove all foliage on public right of way or easement that blocks access to CWLP equipment.

4. **Manholes.** Adequate clearance between and around cables must be maintained to insure safe operation for the equipment and service personnel. A clear working space sufficient for performing the necessary work shall be maintained. The horizontal dimensions of clear working space shall not be less than (3) feet. The vertical dimensions shall not be less than (6) feet. With the exception of grounding or bonding conductors, horizontal runs of supply cables shall be supported at least (3) inches above the floor. Separation between supply and communication facilities shall be per table 341-1 of the NESC. The opening of the manhole shall have a loadbearing ring with a minimum inside diameter of thirty (30) inches. While the wall is being poured, the contractor shall install pulling eyes in the wall opposite each bank of conduit. Where drainage of manholes is into sewers, suitable traps shall be provided to prevent entrance of sewer gas into manholes. Standard drainage is twelve- (12) inch diameter twenty-four inch deep vitrified tile sump with gravel fill. Before entering manholes, the manholes must be adequately ventilated to insure safety of all working personnel.

5. **Vaults**

- a. Where the customer's service requires the installation of CWLP transformers or electrical equipment in an

underground or interior building vault, the vault shall be designed according to NEC code, NESC code, and the walls, roof, floor, and doors shall be constructed of materials that have a minimum fire resistance of three (3) hours.

- b. Vault Ventilation. In order to prevent over-heating of transformers and build-up of dangerous gases, all transformer vaults located underground or inside of buildings shall be forced-air ventilated or vented by a natural circulation of air to an outdoor area through openings of a net area not less than three (3) square inches per KVA pf transformer capacity. Consult the Electric T&D Engineering Department for specifications. All transformers shall be filled with non-PCB contaminated materials in compliance with EPA regulations. No open gratings nor air vent openings shall be installed directly over the transformer or switching equipment, unless such equipment is designed and enclosed for outdoor use.

- c. Accessibility. Transformer vaults and primary switchgear shall be made accessible to CWLP Inspection and Operating personnel at all times. Transformer vaults and primary switchgear rooms shall be provided with an entrance in the exterior wall of the building which will allow CWLP personnel entrance and equipment removal without structural, piping or lighting changes in the building. The outside personnel entrance must be accessible to a single CWLP service man working alone. Outside entrances shall be equipped solely with CWLP standard locks. The keys shall be accessible only to CWLP personnel. To insure easy accessibility for maintenance purposes, a minimum of four (4) feet clear space shall be maintained around the transformers and switching equipment. Materials shall not be stored in transformer vaults, switchgear or electric equipment rooms.

- d. Safety. No vault shall be energized until all permanent equipment, doors, locks and covers for openings have been installed and properly secured. All exits shall open outward from the vaults and shall be provided with a panic type lock to insure quick and

easy exit for personnel safety. All doors must be clearly marked on the outside: "Danger High Voltage - Authorized Personnel Only". The owner of the building is responsible for securing interior doors against unauthorized entry. Adequate lighting shall be provided for normal working conditions. If the building shall contain an emergency lighting system, the transformer vaults shall also contain an emergency lighting system. The customer shall provide a doorsill and concrete curb of sufficient height to confine within the vault the oil from the largest transformer. In no case shall the height be less than four (4) inches. No sprinkler system shall be installed in any vault containing electrical equipment. Consult the Electric T&D Engineering Department for information about the volume of oil contained in the transformer.

- e. Drainage. All vaults shall be provided with a drain. Where drainage is into sewers a deep seal "P" trap shall be provided to prevent entrance of sewer gas into the vault. The floor shall be pitched toward the drain. A back flow prevention valve shall be installed in all drains.

SECTION 4 RESIDENTIAL & COMMERCIAL DEVELOPMENTS

4.01 INTRODUCTION

The regulations in this section apply to all residential and commercial developments. This section defines the overall requirements and responsibilities for all developments, each developer should also familiarize themselves with the appropriate section for each type development for more detailed specifications. Any exceptions to these regulations must be approved by the Electric T&D Engineering Department and are subject to supplemental facilities charges.

4.02 GENERAL REQUIREMENTS

- A. The developer of a residential development of two or more lots or commercial development of two or more buildings must submit a preliminary plat to the Electric T&D Engineering Department, at least two weeks prior to its presentation to the Regional Planning Commission. The revised final plat of the development must be submitted to Engineering Department at least two weeks prior to its presentation to the Regional Planning Commission for final approval. After final approval of the development by the Springfield City Council, two copies of the approved and recorded final plat must be submitted to the Electric T&D Engineering Department.
- B. The developer must provide all necessary easements for the electric system subject to approval of the Electric T&D Engineering Department. Easement strips must be cleared of trees and brush and brought to final grade enough in advance of installation of the electrical distribution system to avoid delays. Approval by CWLP must be obtained where changes are proposed by the developer for preservation of natural foliage or any other reason. Any easement request that is denied by the developer may result in delays in T&D Engineering design and may increase costs to the developer.
- C. The routes and locations of easement strips as shown on the construction plats furnished by CWLP shall be staked by the developer far enough in advance to prevent any delay in excavation and cable installation. Stakes shall be clearly visible and carry the identifying lot number.
- D. Each customer within a development is responsible for installing and maintaining the underground service cable from the CWLP distribution pedestal or transformer to the customer's premises as required in Section 2 and 3 of this manual.
- E. The developer must pay CWLP for the installation of the electric street lighting that complies with CWLP design and specifications on all dedicated streets within any development. Street lighting will be energized, as facilities

become available. The cost for the street lighting is nonrefundable.

4.03 RESIDENTIAL SUBDIVISIONS

- A. CWLP will install a single-phase underground distribution system in all new residential subdivisions for two or more lots. Upon discretion of CWLP, an overhead distribution system may be installed around the perimeter of the subdivision where required. Three-phase underground distribution will be installed only at CWLP's discretion, unless the developer agrees to pay the additional cost of the installation.
- B. The developer must provide CWLP with all necessary easements prior to CWLP construction. If a perimeter easement is denied and no three phase overhead distribution can be installed, CWLP will install an underground three-phase distribution system. The developer will be responsible for the material cost difference plus the cost of engineering the changes in design. This cost will be nonrefundable and must be paid prior to CWLP construction.
- C. All developers of residential subdivisions must sign a contract with CWLP. This contract covers the costs per lot for electric service and any costs for street lighting. The contract also states the conditions of rebates for lot development. No variances to the wording in the contract will be allowed without the approval of the Electric T&D Engineering Department, the Springfield City Council, and the Mayor of Springfield.
- D. The developer shall make a deposit per lot with CWLP in accordance with one of the following options:
 - 1) The developer shall make a deposit with CWLP of \$650 per lot developed. The developer will be refunded \$650 per lot as each lot is occupied by a customer until all lots are developed or until the entire deposit which bears no interest has been refunded. This refund will be made semi-annually for a period not to exceed seven (7) years.

After seven (7) years any remaining deposit becomes the property of CWLP.

- 2) The developer shall make a deposit with CWLP of \$450 per lot developed. The developer will be refunded \$450 per lot as each lot is occupied by a customer until all lots are developed or until the entire deposit which bears no interest has been refunded. This refund will be made semi-annually for a period not to exceed four (4) years. After four (4) years any remaining deposit becomes the property of the CWLP.
- E. Payment for street lights and the developer's deposit for installation of the distribution system will be requested approximately two weeks before the work is scheduled to begin.
 - F. Work will begin according to the CWLP construction schedule. CWLP construction crews will not begin work until the developer has staked the property pins, sent CWLP a check covering the cost of the street lights, and developer's deposit, cleared all easements, staked the sewer systems where they will be in conflict with the electrical system to be installed, and has sent CWLP a letter stating that the subdivision is to final grade.
 - G. Once a letter of final grade is received by CWLP, the developer must pay the additional cost for any physical changes to the distribution facilities resulting from a change of grade. After final plat, all changes to the distribution system will be at the developer's expense.
 - H. Each individual residential electrical service must comply with Section 2 of this manual.

4.04 MULTI-FAMILY DEVELOPMENTS

Individual residential duplex dwellings will be provided electric service according to the terms and conditions of permanent residential service. Individual multi-family dwellings of more than two units will be provided electric service according to the terms and conditions of general service facilities. This section shall apply

to multi-family developments of more than one building on any given lot.

- A. All electric facilities within a multi-family development such as an apartment or condominium complex consisting of two or more buildings must be installed underground. Upon discretion of CWLP an overhead distribution system may be installed around the perimeter of the development where required. Three-phase underground distribution will be installed only at CWLP's discretion, unless the developer agrees to pay the additional cost of the installation. The developer must provide CWLP with all necessary easements prior to CWLP construction.
- B. All electric facilities within multi-family developments such as apartments or condominium complexes consisting of two or more buildings must be installed underground. CWLP shall install a single phase underground distribution system, including manholes, vaults, and equipment pads required to provide service to each building according to the layout and specifications of CWLP. The developer or individual customer shall be responsible for installing and maintaining the service cable from the distribution pedestal or transformer to each individual building or dwelling unit. Where streets within the development are dedicated to the City, the developer shall pay for the installation of electric street lighting that meets the specifications of CWLP. At the discretion of CWLP, an overhead distribution system may be installed around the perimeter of the development where required.
- C. The developer must provide CWLP with all necessary easements prior to CWLP construction. If a perimeter easement is denied and no three phase overhead distribution can be installed, CWLP will install an underground three-phase distribution system. The developer will be responsible for the material cost difference plus the cost of engineering the changes in design. This cost will be nonrefundable and must be paid prior to CWLP construction.
- D. All developers of multifamily developments must sign a contract with CWLP. This contract covers the costs per lot

for electric service and any costs for street lighting. The contract also states the conditions of rebates for lot development. No variances to the wording in the contract will be allowed without the approval of the Electric T&D Engineering Department, the Springfield City Council, and the Mayor of Springfield.

- E. For multi-family developments, the developer shall make a deposit with CWLP of \$1,300 per building to be constructed. The developer shall be refunded \$1,300 per building as each building is completed. This refund shall continue until all buildings are completed or until the entire deposit, which bears no interest, has been refunded. This refund shall be made semi-annually for a period not to exceed seven years. After seven years any remaining deposit shall become the property of the CWLP.
- F. If the developer requires three phase distribution to be installed, CWLP shall install a three phase underground distribution system, including manholes, vaults, and terminating cabinets, in accordance with the utilities layout and specifications. The developer shall install the transformer pads and conduit from said pad to the primary service point.
- G. The developer shall deposit with CWLP the estimated costs, if any, for the installation of said distribution system. The developer or individual customer shall be responsible for installing and maintaining the service cable from the distribution pedestal or transformer to each individual building or dwelling unit.

4.05 MOBILE HOME PARK

- A. CWLP will install a single-phase underground distribution system in all new mobile home parks. Upon the discretion of CWLP, an overhead distribution system may be installed around the perimeter of the mobile home park where required. Three-phase underground distribution will be installed only at CWLP's discretion, unless the developer agrees to pay the additional cost of installation. The developer must provide CWLP with all necessary easements prior to CWLP construction. If a perimeter

easement is denied and no three phase overhead distribution can be installed, CWLP will install an underground three-phase distribution system. The developer will be responsible for the cost difference.

- B. All developers of mobile home parks must sign a contract with CWLP. This contract covers the costs per lot for electric service and any costs for street lighting. The contract also states the conditions of rebates for lot development. No variances to the wording in the contract will be allowed without the approval of the Electric T&D Engineering Department, the Springfield City Council, and the Mayor of Springfield.
- C. Where streets within the mobile home park are dedicated to the city, the developer must pay for the installation of electric street lighting that meets the specifications of CWLP. The developer is also required to make a deposit with CWLP of \$400 per lot to be developed. The developer will be refunded \$400 per lot as each lot is occupied until all lots are developed or until the entire deposit, which bears no interest has been refunded. This refund will be made semi-annually for a period of seven years and after seven years any remaining deposit becomes the property of CWLP.
- D. The mobile home park developer is responsible for installing and maintaining the service pedestal for each individual unit (See Figure 11) and the underground service from the service pedestal to the CWLP transformer or distribution pedestal, including cable and connectors on both ends of the service.
- E. CWLP will install all meters and make the final connection between each service and the CWLP facilities.

4.06 INDUSTRIAL AND COMMERCIAL DEVELOPMENTS

- A. All electric service within industrial and commercial developments of more than one lot or more than one building on a single lot must be installed underground. At the discretion of CWLP, an overhead distribution system may be installed around the perimeter of the development when required.

- B. The developer must provide CWLP with all necessary easements prior to CWLP construction. If a perimeter easement is denied and no three phase overhead distribution can be installed, CWLP will install an underground three-phase distribution system. The developer will be responsible for the material cost difference plus the cost of engineering the changes in design. This cost will be nonrefundable and must be paid prior to CWLP construction.
- C. CWLP shall install a single phase underground distribution system including manholes, vaults, and equipment pads required to provide service to each building according to the layout and specifications of CWLP. The developer or individual customer shall be responsible for installing and maintaining the service cable from the distribution pedestal or transformer to each individual building or each unit, if buildings are going to have more than one CWLP customer.
- D. When streets within the development are dedicated to the city, the developer shall pay for the installation of electric street lighting that meets the specifications of CWLP.
- E. For industrial and commercial developments where CWLP installs the entire underground primary distribution system, the developer shall make a deposit with CWLP of \$1,300 per building to be constructed. The developer shall be refunded \$1,300 per building as each building is completed. This refund shall continue until all buildings are completed or until the entire deposit which bears no interest has been refunded. This refund shall be made semi-annually for a period not to exceed seven years. After seven years any remaining deposit shall become the property of CWLP.
- F. If site plans for buildings are not finalized with sufficient certainty, CWLP may elect to install a single phase underground distribution system to a primary service point on or adjacent to the developer's property, which system would not include building transformer pads and conduit from the primary service point to each pad, and such transformer pads and conduit shall be installed by the developer. CWLP shall then install all primary cable and transformers. The developer or individual customer shall be responsible for installing and maintaining the service cable

from the distribution pedestal or transformer to each building or, if applicable, each unit of each building.

- G. If the developer requires three-phase distribution to be installed, CWLP shall install a three-phase underground distribution system to a primary service point on or adjacent to the developer's property. That system would not include building transformer pads and conduit from the primary service point to each pad. The developer shall install the transformer pads and conduit.
- H. The developer shall deposit with CWLP the estimated costs, if any, for the installation of said distribution system to said primary service point prior to installation. After the installation to be performed by the developer is completed, CWLP shall then install all primary cable and transformers.
- I. The developer or individual customer shall be responsible for installing and maintaining the service cable from the distribution pedestal or transformer to each building or, if applicable, each unit of each building.

4.07 MULTI-USE DEVELOPMENTS

- A. A Multi-Use Development shall be defined as a development, which contains areas which address more than one section of this manual. An example would be a residential subdivision containing single family and duplex areas and an apartment complex.
- B. All electric facilities within multi-use developments must be installed underground. Upon discretion of CWLP an overhead distribution system may be installed around the perimeter of the development where required.
- C. The developer must provide CWLP with all necessary easements prior to CWLP construction. If a perimeter easement is denied and no three phase overhead distribution can be installed, CWLP will install an underground three-phase distribution system. The developer will be responsible for the material cost difference plus the cost of engineering the changes in design. This cost will be nonrefundable and must be paid prior to CWLP construction.

- D. CWLP shall install the underground distribution system to provide electrical service to each lot within the development. The developer shall provide CWLP with all necessary easements prior to construction. The developer shall pay CWLP in advance for the estimated cost of the underground conduit system and equipment pads required to provide electrical facilities to each lot within the development.
- E. Where streets within the multi-use development are dedicated to the city, the developer must pay for the installation of electric street lighting that meets the specifications of CWLP.
- F. Three phase primary feeder lines within the individual lots of planned unit developments will be installed only at the discretion of CWLP unless the developer or individual lot owner pays the costs of the installation.
- G. The developer or individual lot owner shall be responsible for meeting all applicable requirements of this manual pertaining to the nature of the individual lot development, be it residential subdivision, multi-family development, general service building, etc.

SECTION 5 TEMPORARY SERVICE REQUIREMENTS

5.01 INTRODUCTION

Where electrical service is required for short periods of time for uses of a temporary nature such as construction projects, exhibitions, carnivals, etc., City Water, Light and Power will install additional facilities on a temporary basis. The customer shall pay the cost of installing and removing all such facilities in accordance with the temporary service provisions of the Springfield City Code. The procedure for obtaining temporary electrical service is outlined in Section 2 and 3 of this manual.

The requirements in Section 5.02, 5.03, and 5.04 apply to 120/240 volt single phase temporary service installations. For three phase

temporary service installations the customer should contact the Electric T&D Engineering Department.

5.02 GENERAL REQUIREMENTS

A. INSTALLATION

1. The meter base, main disconnect switch and temporary receptacle shall be securely mounted on a wood post or piece of dimensional lumber no less than four inches by four inches square. Conductors between the devices shall be enclosed in conduit.
2. The main disconnect and receptacle enclosures shall be NEMA Type 3 raintight.
3. The meter base, main disconnect and receptacle shall be mounted on the post such that the meter base shall be a minimum of five (5) feet above final grade level when installed and a maximum of six (6) feet above final grade level.
4. The main disconnect enclosure shall be provided with a lock to prohibit tampering.
5. The temporary service installation shall be grounded at the temporary post with ~~Revise to:~~ a copper grounding electrode conductor sized per NEC Table 250-66 but not less than #6, installed from the meter base, or main disconnect enclosure to a 5/8 inch by eight foot copper or galvanized steel.
6. No temporary installation shall be installed on any CWLP power pole.

B. IDENTIFICATION

1. For ease of CWLP service crews, the customer shall securely attach an identification tag to the temporary service post. This identification tag shall include the customer's name, address of the temporary service and a telephone number where the customer may be reached.

2. No temporary meter set at one location shall be moved by the customer to any other location.

5.03 TEMPORARY OVERHEAD SERVICE REQUIREMENTS

A. RESPONSIBILITIES

1. The customer shall be responsible for providing, installing, and maintaining the temporary service post including the main disconnect, receptacle, enclosures, conduit, weatherhead, ground, bracing and enough cable to extend at least two (2) feet beyond the weatherhead. The customer shall also be responsible for installing the meter base and equipment for terminating the CWLP service conductor on the temporary service post.
2. The customer or their representative is responsible for providing a meter base meeting CWLP Specifications for all self-contained metering applications. For instrument rated applications the customer shall purchase an instrument rated meter base from the Electric Metering Department at 1600 S. Groth street.
3. CWLP will install the overhead service drop and meter and make the final connection between this service drop and the customer's temporary service conductors.

B. INSTALLATION REQUIREMENTS (SEE FIGURE 12)

- 1) The temporary service post shall be buried at least four (4) feet below ground level and extend far enough above the ground to allow attachment of the CWLP service drop at least ten (10) feet above final grade level.
- 2) The post shall be adequately braced to withstand tension from the service drop. A minimum of three (3) braces shall be attached to the pole and staked into the ground according to Figure 12

5.04 TEMPORARY UNDERGROUND SERVICE REQUIREMENTS

A. RESPONSIBILITIES

1. The customer shall be responsible for providing, installing and maintaining the temporary service post including the main disconnect, receptacle, enclosures, conduit, ground and underground service cable from the post to the CWLP pad mount transformer or distribution pedestal. He shall also be responsible for installing the meter base.
3. CWLP will install the customer's temporary service conductors at the CWLP pad mount transformer or distribution pedestal.
4. CWLP will install the meter and make the final connection between CWLP facilities and the customer's temporary service conductors.

B. INSTALLATION REQUIREMENTS (SEE FIGURE 13)

1. The temporary service post shall be buried a minimum of three (3) feet below ground level.
2. The temporary service post shall be located no closer than five (5) feet from the CWLP pad mount transformer or distribution pedestal.
3. The service cable from the temporary service pole to the CWLP facilities shall be buried a minimum of one (1) foot below ground level. The cable shall be brought out of the ground next to the pad mount transformer or distribution pedestal and a sufficient amount of cable coiled on the ground to reach the bushings of the transformer or connectors within the distribution pedestal. Only cable approved for direct burial installations by the NEC will be acceptable for this application.

5.05 TEMPORARY SERVICE PRICES

- A. When service is required for short periods of time for uses of a temporary nature, such as for construction projects, exhibitions,

traveling shows, etc., and CWLP is required to install additional facilities on a temporary basis, such as line extensions, transformers, meters and other items, the customer shall pay the cost of installing and removing all such facilities.

- B. CWLP will quote a charge for all temporary facilities depending upon the particular requirements for each installation. A non-refundable deposit may be required for preparation of the quote. The deposit will be applied to the final payment. Payment for all temporary facilities will be required in advance.
- C. The charge for power and energy, billed monthly for temporary installations, will be at the applicable rate with an advance deposit required of such amounts as determined by CWLP.
- D. The cost of furnishing temporary service for home building when no line extensions or pole setting is required shall be \$ 90.00. Effective November 2001, the price will be adjusted to \$120.00. Effective November 2002, the price will become \$150.00.
- E. Listed below are the usual type of facilities required for temporary service. All prices are limited to a maximum of 200-amp service and line extension of no more than two spans. The prices of each are based upon labor, equipment and overhead costs as the date of this code and are subject to revision when these costs change.

For Single-Phase Temporary Service:

Costs - Effective Dates	11/01/00	11/01/01	11/01/02
Line extension per span (Primary or Secondary)	\$150.00	\$200.00	\$ 250.00
Setting one tangent pole	\$365.00	\$465.00	\$ 570.00
Setting deadend pole	\$390.00	\$500.00	\$ 610.00
Installing a single transformer	\$550.00	\$740.00	\$ 935.00
Installing an anchor and guy	\$190.00	\$245.00	\$ 300.00
Installing service drop and meter	\$90.00	\$120.00	\$ 150.00

For Three Phase Temporary Service:

Line extension per span (Primary or Secondary)	\$210.00	\$255.00	\$ 300.00
Setting one tangent pole	\$450.00	\$575.00	\$ 705.00

Setting deadend pole	\$625.00	\$800.00	\$ 970.00
Installing a transformer bank	\$1200.00	\$1650.00	\$ 2100.00
Installing an anchor and guy	\$190.00	\$245.00	\$ 300.00
Installing service drop and meter	\$120.00	\$160.00	\$ 200.00

CWLP engineers shall estimate any special service requirements of the customer, other than those outlined above. Payments shall be made in advance based upon the above listed estimate. All of the above prices are subject to any applicable tax imposed on CWLP.

SECTION 6 LIGHTING

6.01 STREET LIGHTING

- A. CWLP will provide street lights according to their standard designs and specifications along all dedicated thoroughfares within the City limits. In newly annexed areas, CWLP will attempt to provide street lights within two years following annexation. Installation shall be scheduled in accordance with annexation date.
- B. In all new commercial, industrial, and residential developments, CWLP will install streetlights energized from underground cable according to their standard design and specifications along all dedicated streets. The developer shall be required to pay the entire cost of the installation.
- C. CWLP will install only streetlights of its standard design and specifications along dedicated thoroughfares. Any customer desiring lighting other than CWLP's standard for ornamental or other purposes will be required to install such fixtures at their own cost. Such lighting will require the approval of the Electric T&D Engineering Department. In all cases where such lighting is installed by the customer, CWLP reserves the right to supplement this lighting with its standard street lighting for traffic safety purposes.
- D. Notwithstanding the provisions in subsection (c) above, the utility may engage in cooperative actions regarding ornamental lighting in an area bounded by Madison on the north, Cook on the south, Pasfield on the west and Ninth on the east, which area comprises a major portion of the Central Area Streetscape Plan endorsed pursuant to Resolution No. 83-18, under the following terms and conditions:
 - 1. Such ornamental lighting shall be of a standard fixture.
 - 2. Customers desiring such ornamental lighting shall be responsible for purchasing and installing such ornamental lighting fixtures and necessary service wiring.

3. The utility shall provide energy for lighting and labor for bulb replacement and replacing damaged fixtures.
4. The customer shall also provide not less than one replacement fixture to be stored by the utility as replacement inventory. The customer shall provide additional replacements as inventory is depleted.
5. The utility reserves the right to supplement such ornamental lighting with its standard street lighting for traffic safety purposes.
6. The customer shall be required to enter into a written agreement with the utility concerning such ornamental lighting, which shall run with the customer's premises.

6.02 SECURITY LIGHTING

A. INTRODUCTION

CWLP, upon request, will provide outdoor lighting for the purpose of safety and security for any qualifying customer, as facilities are available. When this lighting is provided, CWLP will have the final decision as to the location of the light and all facilities installed will remain the property of CWLP. The customer will be required to pay a flat monthly rate according to the facilities installed as listed in the provisions of the section of the City Code on Security Lighting.

B. SECURITY LIGHT APPLICATION PROCEDURE

1. The customer shall contact the Electric T&D Engineering Department.
2. An Electric T&D Engineering Department Representative will arrange to meet the customer to discuss the placement of the security light and to have the Private Outdoor Lighting Contract signed.
3. An Electric T&D Engineering Department Representative will coordinate the installation of the light with the

Construction Department. Four weeks should be allowed for scheduling of the installation.

4. The customer's billing will not be initiated until the security light has been installed.

C. GENERAL REQUIREMENTS

1. Security lighting is not available in all areas. Please refer to Section D, Installation Requirements for more details.
2. No initial installation fee will be charged for the pole or light, nor will the energy use be metered. If additional equipment needs to be installed in an area where 120-volt service is not available, the customer must pay the cost of installation of these additional facilities.
3. A customer requesting outdoor lighting must sign a Private Outdoor Lighting Contract. The contract provides a specified monthly payment rate for a period of 2½ years if only a light is installed or a period of five (5) years if a pole or poles are installed. If the customer desires to cancel the contract prior to termination, the customer must make the remaining payments for the contract period in one lump sum.

The lump sum payment may be waived only by the written consent of CWLP and then only by the customer assigning and a new property owner assuming the assignment payments for the remaining initial contract period. The contract may be cancelled by the customer at no cost at any time after the monthly payments agreed to in the contract have been satisfied.

4. All rates for lights are subject to current CWLP electric rate schedules. In the event of the passage of an electric rate adjustment ordinance by the Springfield City Council any time during the term of the contract or after its expiration, all security light

rates will be adjusted according to the approved rate adjustment. Any time after the initial contract period, rates may be adjusted according to current labor and equipment rates at that time.

5. All facilities installed by CWLP remain the sole property of the CWLP Electric Division.
6. Any customer requesting relocation of an existing security light must pay the entire cost of the relocation unless the relocation is made for the convenience of CWLP.
7. CWLP reserves the right to cancel any contract in case of excessive maintenance or replacement due to vandalism or other causes.

D. INSTALLATION REQUIREMENTS

1. No light will be installed on any structure other than a CWLP pole.
2. No light will be installed in an area developed for underground electric distribution nor will any light be energized from an underground cable.
3. Lights may be installed on existing poles only if the pole can accommodate the light and it does not interfere with CWLP's primary use of the pole.
4. No light will be installed where overhead 120-volt service is not available within the immediate area unless the customer pays the cost of installing the facilities necessary to provide 120-volt service to the light.
5. Poles will only be installed in areas accessible to CWLP line equipment without hazard to private property such as driveways, sidewalks, fences, etc.
6. A total of three lights will be allowed for each commercial or industrial customer either installed separately or together unless those lights are installed

on public property, such as street or alley right-of-way or installed on existing poles.

7. Lighting made available under this section will not be provided for the purpose of overall lighting of parking lots, private streets or roadways.

6.03 SECURITY LIGHTING RATES

- A. CWLP, upon request, will provide private outdoor lighting for the purpose of safety and security for any customer. When this lighting is provided, CWLP will have the final decision as to the location of the light and all facilities installed will remain the property of CWLP.
- B. The customer will be required to pay a flat monthly rate according to the facilities installed as follows:

security lighting Options 1-4 are for new security lights on an existing CWLP utility pole

Lighting Option	Bulb Sizing Range (Watts)	Lumen Output Range	kWh Consumption Range	Monthly Rate Effective 11/01/00	Monthly Rate Effective 11/01/01	Monthly Rate Effective 11/01/02
1	100	3350	36	\$5.40	\$6.30	\$7.25
2	100-250	7000-8500	70-90	\$7.50	\$9.00	\$10.50
3	250-400	20000-45000	144-170	\$11.25	\$12.25	\$13.25
4	400-1000	54000	170-415	\$22.00	\$22.00	\$22.00

Pole/light combo Option 5-8 includes a new security light and a new CWLP utility pole

Lighting Option		light	pole	Monthly Rate Effective 11/01/00	Monthly Rate Effective 11/01/01	Monthly Rate Effective 11/01/02
5		100	30/35	\$9.40	\$10.30	\$11.25
6		100-250	30/35	\$11.50	\$13.00	\$14.50
7		250-400	35	\$15.25	\$16.25	\$17.25
8		400-1000	40	\$26.00	\$26.00	\$26.00

additional poles This option is for additional poles if deemed necessary by CWLP

pole size (ft)	monthly rate
30	\$ 4.00
35	\$ 4.00
40	\$ 4.00

- C. CWLP reserves the right to remove any light installed in cases of excessive maintenance or replacement due to vandalism or other causes.
- D. Lamp sizes and pole sizes are subject to availability. Please contact T&D Engineering for availability.

6.04 FAÇADE LIGHTING

The Utility, upon request, will provide private outdoor facade lighting. The facade lighting shall be installed on utility owned facilities. The customer shall pay all relocation costs.

- A. When this lighting is provided, the Utility will have the final decision as to the location of the light and all facilities installed shall be operated and maintained by the Utility.
- B. The customer will be required to furnish and replace, as required, the facade lighting luminaries.
- C. The customer shall pay a flat monthly rate of \$6.00 per month.