

Engineering Rules and Regulations for Electric Service Platte-Clay Electric Cooperative, Inc.

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Kearney Cooperative Headquarters
1000 W. 92 Highway
Kearney, MO



Platte City District Office
15055 Bethel Rd
Platte City, MO

Introduction

Platte-Clay Electric Cooperative, Inc., hereinafter referred to as "the Cooperative," is committed to meeting our members' expectations while providing reliable electric service at a competitive price. To accomplish this goal, the Cooperative must effectively use existing utility plant and plan for future expansion while ensuring safe, reliable, and consistent service to all its members. These Standards are guides to assist in expediting service connections and maintaining equitable rates for electric service. All members' wiring must comply with the Cooperative's requirements, with National Electric Code, and any other codes or regulations in effect in the service area.

The Cooperative does not inspect the members' wiring for compliance with requirements of electrical codes or regulations established by public bodies.

The Cooperative encourages all inquiries concerning unusual or special needs of members. Due to continuing development of construction practices, some procedures may be modified from time to time. The Cooperative should be contacted about each installation early enough in the process to assure timely installation of service.

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GENERAL INFORMATION

GENERAL INFORMATION

This book of Standards is issued by the Cooperative as a guide for obtaining electric service, the conditions for service, and the standards for materials and construction in the member's service entrance installation.

Representatives of the Cooperative are available for consultation at no charge. They are aware of developments in safe and adequate wiring, latest developments in HVAC, home construction, lighting, and security. We encourage you to take advantage of these and other services offered by the Cooperative.

Member/Customer voluntarily gives the duly authorized agents and employees of Platte-Clay Electric Cooperative, Inc. full and free access to the premises of the Member/Customer for the purpose of installing, constructing, inspecting, adjusting, repairing, maintaining, replacing or removing any of the Cooperative's facilities on the premises of the Member/Customer, reading meters, or for any other purpose incidental to the electric service supplied by the Cooperative. The Member/Customer voluntarily gives the Cooperative a right of way easement for any and all facilities necessary for electric service as a condition of electric service to the Members/Customers' of the Cooperative properties. Where the Cooperative's facilities are located beyond locked doors or gates, the member's locking device should be interlocked with the Cooperative's to allow access to the Cooperative's facilities (illustrated on page 13). The Cooperative will attempt to notify the member in person or by phone prior to entering the property whenever feasible.

To ensure the safety of the community, the member should use no other electric power or lighting service in conjunction with the Cooperative's service without first contacting the Cooperative. To prevent operation of the member's generating facilities in parallel with the Cooperative's service, the member will be required to install a double-throw switch acceptable to the Cooperative for all systems not meeting Missouri Net Metering Requirements. For renewable DG systems meeting Missouri Net

Metering standards, see the Cooperative's Application and Agreement for Interconnection and Net Metering of Systems with Capacity of 100kw or Less.

The Cooperative will need easements from the member requesting service across all properties where the electric facilities will be installed. The member will need to provide a copy of their Deed to assist in the timely installation of the service and assist in obtaining easements from other properties.

Routine tree and brush trimming is necessary for maintaining reliable electric service and the Cooperative does so on a five-year cycle at no cost to the member. Some emergency situations may require immediate or more extensive clearing and trimming. The member may request more frequent or extensive trimming at a cost that will be agreeable to the member and the Cooperative. Member is responsible for clearing the right of way for a line extension requested by the member on his or her own property only.

Providing all our members with continuous quality electric service is a priority of the Cooperative, but the Cooperative cannot prevent some irregularities or interruptions in the supply of electric service. The Cooperative shall not otherwise be liable for any damages that may result from irregularities or interruption of electric service beyond reasonable control.

The developer, builder, or member shall assume responsibility for the cost of replacing, repairing, and/or relocating existing Cooperative facilities due to any construction activity, including grading changes, which prohibits the safe and efficient operation and maintenance of Platte-Clay's electrical system.

All line extension service charges will be paid in advance of releasing work orders for construction. In the event the Cooperative discovers rock or other obstructions during the installation of electric facilities, the member/developer will be responsible for additional charges or removal of such obstructions.

SERVICE ENTRANCE STANDARDS AND REQUIREMENTS

The Cooperative will assist the member, builder, or contractor in properly locating the meter base. The meter installation and entrance shall be located on an outside wall of the member's structure closest to the transformer or service dome from which the structure will be served (Illustrated on page 14).

The Cooperative will size the service wire and meter installation to the member's load and not necessarily to the entrance size. Self-contained metering is intended for single-phase service up to 320 amperes and for three-phase service up to 200 amperes. For larger services, current transformers are required.

In a structure housing multiple occupancies served from a common service entrance, the equipment shall be a ganged metering installation.

The Cooperative maintains all electric facilities up to the bottom lugs on a self-contained meter installation. For current transformer installations, the member's facilities start at the secondary terminals of the transformer. This point will be the defining line of the Cooperative's and the member's responsibilities.

All member's service wires leaving the Cooperative's meter can and going underground must be protected by a breaker.

Overhead services shall be installed in accordance with the latest edition of the National Electric Safety Code and other applicable codes and regulations.

Underground services shall be installed in accordance with the latest edition of the National Electric Safety Code and other applicable codes and regulations.

See metering appendix on pages 20-27 for metering specifications, drawings, and details.

Temporary Service

Where a secondary voltage source exists, the Cooperative will provide and install a self-contained 240-volt construction power temporary service unit complete with meter, GFCI, two 20-amp receptacles, and a 50-amp breaker (illustrated on page 16) within five feet of the transformer or service dome for a period of up to one year. Charges related to a temporary service are indicated in the Line Extension Service Charges section of this booklet.

If the temporary service unit in the field is tampered with or damaged, the unit will be disconnected from service and the member billed for costs to repair the equipment.

UTILIZATION EQUIPMENT

In order to assure safe and quality service to all members, it is important that each member agrees to comply with the requirements contained in this Standard. The member should agree to use the electric service supplied by the Cooperative with consideration to the effect of such service on its other members and on the facilities and equipment owned by the Cooperative.

The Cooperative may refuse to supply electric service or may suspend electric service to a member if the member's installation is in an unsafe or dangerous condition, or is so designed or operated as to disturb the electric service supplied by the Cooperative to other members.

Equipment with excessive starting currents, or that has intermittent or rapidly fluctuating load characteristics should not be connected to the Cooperative's lines without prior arrangement with the Cooperative. If the member's use of such equipment requires the installation of separate or additional transformer capacity, the Cooperative will, upon member's request, furnish and maintain such equipment. The member may be charged a monthly rental fee, in addition to his bill for electric service.

In order that the Cooperative's lines and equipment may be checked for adequacy, the

member should notify the Cooperative whenever motors larger than 7 ½ HP or any special or unusual equipment will be installed.

Electric service is subject to occasional rapid voltage variations, which may adversely affect the operations of sensitive controls on member's electrical equipment. Devices are available for use with most electric equipment that will minimize the effect of such disturbances. The Cooperative can suggest appropriate devices for such applications and will advise on their correct adjustment and settings.

Computers and other sensitive electronic equipment installations require special consideration. The Cooperative is available to assist the member with the planning of such service requirements.

MOTORS – STARTING LIMITATIONS

Starting inrush for single or multiple motors, such as air conditioning units, shall be limited at any time to 50 amperes at 120 volts or 150 amperes at 240 volts. The running power factor of motors shall be not less than 85 percent. For three-phase, 60-hertz motors to be operated from a 240- or 480-volt supply, the permissible starting inrush is limited by the effect on the other motors and on the distribution systems of the member and the Cooperative. So that the Cooperative may assure proper service to all members on a distribution system, the member considering use of such motors is asked to notify the Cooperative of the maximum size and type of motor to be served and the aggregate of all motor loads.

So that the Cooperative may assure proper service to all members on the affected distribution system, the member is asked to notify the Cooperative of the maximum size and type of motor to be served, the aggregate of all motor loads, and the type of lighting and other equipment to be served at 120 volts.

The Cooperative uses single-pole switches and single-phase fuses in its distribution system. Accordingly, the member should protect all three-phase motors and equipment from a single-phase operating condition. In addition, in accordance with the National Electrical Code, the member should provide suitable protection for the motor and equipment from improper or dangerous operation due to motor overloads or the failure to start.

- a) All motors should be protected against overload by the installation of adequate overcurrent, thermal protective devices in all phases.
- b) Three-phase motors that operate apparatus that may be subjected to damage due to a reversal of rotation should be protected with reverse-phase relays.

GENERATORS

A member considering the operation of a Generator shall install a double throw transfer switch (interlocks are not approved).

The Cooperative requires for submission detailed plans, specifications, equipment description, and other information pertinent to the proposed installation before operation of such equipment.

RESIDENTIAL ELECTRIC SERVICE

GENERAL PROVISIONS

Residential Electric service will apply to all permanent residences attached to permanent concrete foundation. Seasonal houses, trailer or modular homes not on a permanent foundation, do not apply.

The service entrance should be adequate for future growth as well as for present requirements. The Cooperative recommends that all new service entrances have a minimum capacity of 200 amperes. The member assumes responsibility to install service equipment in accordance with the provisions of the National Electrical Code at a minimum. Service

equipment should be suitable for the short-circuit current available at its supply terminals.

Available short-circuit current at residential service entrances rated 200 amperes or less will be more than 1200 amperes but not exceed 10,000 amperes.

Residential buildings which require three-phase service for loads such as elevators or large central cooling units will be served as commercial members and in accordance with the standards for that type of service.

METERING

The Cooperative will furnish a meter socket for self-contained and current transformer-rated metering.

In multiple-occupancy buildings, each of the units shall be individually metered. All meters shall be at the same location and properly marked in agreement with the corresponding service. The Cooperative will make available for sale the type and size of required equipment.

See metering appendix on pages 20-27 for metering specifications, drawings, and details.

OVERHEAD SERVICE

For self-contained metering, the Cooperative will provide and install the meter loop if the meter is on the meter pole. For self-contained metering that is mounted on the member's structure, the member shall furnish and install the Cooperative approved meter socket, conduit, and conductors from his service entrance and equipment to service drop. The Cooperative will furnish and install the service drop. The member's service conductors shall run from the meter socket through the service conduit riser with at least 24" of conductor extending from the weatherhead to provide for connection to the service drop with an adequate drip loop. The Cooperative will make the connections to the member's service conductors and install the meter. The service conduit mast or service hook shall be of a strength that is adequate for the span tension

and of sufficient height to provide proper clearances for the Cooperative's service drop.

See Table 1 for line extension service charges. For line extensions along county ROW where the Cooperative reasonable believes the primary line may serve future services, the Cooperative may elect in its sole discretion to discount line extension cost by 25%.

UNDERGROUND SERVICE – SUBDIVISIONS

A qualifying subdivision is a legally platted subdivision with an average lot size of less than 7 acres and containing a minimum of 5 lots.

In subdivision developments the developer will provide and install conduit for all road crossing as required by the Cooperative. The developer will provide an electronic copy of the subdivision plat to the Cooperative in an approved format with the required landbase information.

In lieu of paying some of the line extension charges outlined on Table 1, the member/developer may elect to install a complete conduit system throughout the subdivision. The conduit system is not required if the member/developer chooses to pay all applicable line extension charges. The following criteria outline the specifications for the conduit system.

- a) The developer/member may provide and install a continuous, rigid electrical plastic conduit (Schedule 40), without sharp bends or indentations, and shall cap or seal both the ends. The Cooperative will provide illustrations showing the locations and routings of all conduits. The minimum depth of the top of the conduit shall be 52".)
- b) All conduits shall be purchased continuous rigid electrical plastic (Schedule 40) without sharp bends or indentations. All bends shall have 36" radii. Conduit shall be buried a minimum of 52" from top of grade. In solid rock, this may be reduced to 24" provided 2" of concrete are installed above the conduit.

- c) The developer/member will also provide and install a conduit riser and other conduits necessary to complete the entrance in accordance with the Cooperative's Standard.
- d) The member shall contact the Cooperative for an open-trench inspection. The trench shall not be backfilled until the Cooperative has approved the conduit installation. The member is to provide and install all conduit risers for service entrances and any other conduits necessary to complete the entrance in accordance with Cooperative Standards. Open ends of conduit are to be capped or sealed.
- e) All conduit installed by the member shall have heavy-duty string or nylon cord inside for the Cooperative to install its cable-pulling rope. The developer/member shall backfill the trench after the inspection of the trench to within 24" of the Cooperative's facilities. Until the service cable is installed and the trench is backfilled, the member is responsible for covering the open trench for safety. The member shall promptly complete the backfilling after the cable is installed.

It is preferred and highly recommended that a "front-of-lot" electric distribution system be specified to minimize future operating costs, service restoration times, and possible damage to members' landscaping. Electric distribution facilities will be installed on the building lots along or near the front line. In areas where terrain will lend itself to such construction and construction costs are not excessive, the Cooperative will consider "rear-of-lot" underground distribution. The areas to be served must be platted—and the plats filed—and graded to within 3" of final grade before the Cooperative begins construction. Electronic copies of a filed plat must be furnished to the Cooperative.

The developer/member is to provide, at no cost to the Cooperative, all rights of way and easements required for Cooperative facilities that may be required to serve the member. Said easement shall have a minimum width of ten feet inclusive on one lot.

The developer shall provide all-weather hard-surface access for Cooperative vehicles to all electrical facilities prior to sodding, landscaping, and fencing. Lots and pad locations must be pinned or staked and the easements cleared of all trees, stumps, excessive rock, and obstructions before the Cooperative can begin construction. Removal of excessive spoils (rocks, tree stumps, etc.) resulting from the installation of the Cooperative facilities will be the responsibility of the member.

The member shall promptly complete the backfilling after the service cable is installed.

For multi-metered dwellings, meter sockets shall all be at one location (the portion of a building between approved firewalls is considered one location). The meters shall be marked indicating correct location information.

The developer will reimburse the Cooperative for the cost of replacing, repairing, and/or raising facilities that are damaged, destroyed, or buried during the construction process.

RURAL RESIDENTIAL SERVICE

A rural residential service is defined as not in a platted subdivision or in a platted subdivision with an average lot size of 7 acres or more or containing fewer than 5 lots. The Cooperative reserves the right in all instances to designate whether a member is rural service.

- A. A Cooperative representative will be pleased to explain the charges and billing procedures in accordance with the Line Extension Service Charges in Table 1. For line extensions along county ROW where the Cooperative reasonable believes the primary line may serve future services, the Cooperative may elect in its sole

discretion to discount line extension cost by 25%.

- B. The meter may be installed on a building or on a meter pole at the option of the member.
- C. When the meter is located on a building, the Cooperative is to install the meter and the service drop from its last pole to the building. All other equipment is to be provided and installed by the member.
- D. For 200-ampere and smaller installations where the meter is to be located on a meter pole, the Cooperative is to install the pole, the meter, and service drop or underground service from the transformer. The member is to furnish a main disconnect with protective device for joining to the meter socket for underground services.

Non-Permanent Service

Any service not falling under Residential Service or Commercial Service Standards, typical service includes signs, barns, trailers, mobile homes/modular homes not attached to a permanent concrete foundation. The Line Extension Service Charges in Table 2 will apply when constructing these services.

COMMERCIAL & INDUSTRIAL ELECTRIC SERVICE Including high-rise apartments & residential three-phase, 60 hertz 120/208 volts, four-wire

Introduction

Upon member's request, the Cooperative will specify the type of electric service available at any given location for use by the member.

Commercial & Industrial

- Single-phase, 60 hertz 120/240 volts, three-wire
- Three-phase, 60 hertz, 120/208 volts or 277/480 volts, four-wire
- Under certain conditions, primary service at three-phase, 60 hertz, 7200/12470Y volts, four-wire

An existing member who alters his service entrance to supply added load must install equipment to accept the same voltage system which would be available to a new member.

General Provisions

To avoid delays and extra expenses, architects, engineers, contractors, and builders are

requested to consult in advance with the Cooperative for any specifications and directions for the proposed service entrance. To avoid expensive alterations, the service entrance should be adequate for future growth as well as for present requirements. It is recommended that all new service entrances have a minimum capacity of 200 amperes.

It is the member's responsibility to install service equipment in accordance with the provisions of the National Electrical Code as a minimum. An important provision of the current edition of the National Electrical Code is in Section 230-65, which states that, "Service equipment shall be suitable for the short-circuit current available at its supply terminals."

So that architects, engineers, and wiring contractors may select proper service equipment to meet the above-mentioned requirement, the following information will apply to new installations.

Available fault currents will vary with each installation. Inquiry for a particular location should be directed to the Cooperative Staking Engineer.

For buildings where a number of meters are installed, each service switch and meter enclosure is to be plainly marked by the building owner, the member, or his agent, with a permanent identification of the apartment or space which it serves. General services and electric heat services must be similarly distinguished. The identification shall also be permanently inscribed on the inside back of each meter enclosure near the meter socket clips. It is the responsibility of the builder owner, the member, or his agent to see that wiring in such locations is connected to the proper member or meters. The Cooperative will not render service until all switches, meters, and entrance panels are clearly marked.

Where an installation comprises more than one type of service (for example, single-phase, 120/240 volts and three-phase, 240 volts), such information is to be plainly and permanently marked on each entrance switch by the building owner, the member, or his agent.

METERING

The Cooperative will furnish an approved meter socket except where a ganged meter socket is required.

The member may purchase and install a prefabricated device that includes the meter socket. The member should obtain approval by the Cooperative of such installation and equipment prior to purchase of equipment. In this case the member will own and maintain the meter socket and enclosure and the Cooperative will own and maintain the meter.

In multiple-occupancy buildings, each of the premises shall be individually metered, as well as the facilities used in common if applicable. All meters shall be at the same location and properly marked in agreement with the corresponding service switch markings. The building owner or his agent will purchase and install prefabricated package-type multiple metering and entrance equipment. The type and size of the equipment must be approved in advance by the Cooperative. All pulling space provided in the member's equipment for the termination of the Cooperative's service conductors shall conform to the size requirements set forth in the National Electrical Code covering pull boxes.

See metering appendix on pages 20-27 for metering specifications, drawings, and details.

Primary metered service line extension cost will be a case by case basis.

SERVICE ALTERATIONS

It is the Cooperative's intent to utilize as much of its existing facilities as is practical. When a member desires an alteration in electric facilities, a Cooperative employee will meet with the member and provide a free estimate of the cost based on the provisions in Table 4.

DISCONNECTION/RECONNECTION OF IDLE SERVICE

Reconnection of an idle service may only be done with proper notification and authorization by the Cooperative. Any service that has been idle may require rehabilitation to make it ready to use. The Cooperative reserves the right to assess a non-refundable aid-to-construction to either make the service ready, or replace the service as the Cooperative sees fit. The aid-to-construction should not exceed the sum of facility charges that the Cooperative would have received during the idle period.

In addition, the Cooperative reserves the right to refuse connection of the service, if in the Cooperative's opinion there is reason to believe that the service is unsafe to energize. The Cooperative will re-energize the service after repairs have been made to rectify any unsafe conditions.

The Cooperative, at its own discretion, may retire (remove) any facilities that have been idle. If a member at or near a service that had been retired subsequently requests service, the service extension rules in place at the time the service will be installed will determine any charges that might be assessed to connect the new service.

If a member requests that an idled service continue to be left idled and not retired, the Cooperative will allow the facility to remain in place if the member agrees to pay an amount equal to the currently applicable facility charge until the member chooses to have the service re-energized.

AREA PROTECTIVE LIGHTING

The Cooperative will install and maintain, for a flat monthly rate, a variety of luminaries. For details concerning this service, contact any Cooperative Customer Service Representative.

ILLUSTRATIONS

Platte-Clay Electric Cooperative, Inc.

Interlocking Devices



Where the Cooperative's facilities are located beyond locked doors or gates, the member's locking device should be interlocked with the Cooperative's to allow access to the Cooperative's facilities. The Cooperative will attempt to notify the member at reasonable hours prior to entering the property.

Platte-Clay Electric Cooperative, Inc. Equipment Identified Transformers/Domes



Conventional Transformer



Padmounted Transformer



Low Voltage Dome

The transformers and low voltage domes are the only electrical facilities acceptable for the installation of a service conduit run. If during installation you are unsure of the facilities please contact the Cooperative. **NOTE: Under no circumstances should anyone other than a Platte-Clay Electric Cooperative employee open or attempt to open Platte-Clay Electric owned facilities.**

Platte-Clay Electric Cooperative, Inc. Equipment Identified **NON-ACCEPTABLE EQUIPMENT**



Electrical Switch Cabinet



**Telephone
Pedestal**



**Cable TV
Pedestal**



**Pipeline
Marker**

The above photos represent facilities not acceptable for the installation of the Cooperative's electric service wire/conduit.

Platte-Clay Electric Cooperative, Inc.

Equipment Identified

240-volt Construction Power Temporary Service Unit



Where a secondary voltage source exists, the Cooperative will provide and install a self-contained 240-volt construction power temporary service unit complete with meter, GFCI, two 20-amp receptacles, and a 50-amp breaker within five feet of the transformer or service dome for a period of up to one year. **Note: If the temporary service unit in the field is tampered with or damaged, the unit will be disconnected from service and the member billed for costs to repair the equipment.**

Platte-Clay Electric Cooperative, Inc.

200-amp Meter Base Installation

Overhead Service



See Drawings 1 or 2 for more details.

Underground Service

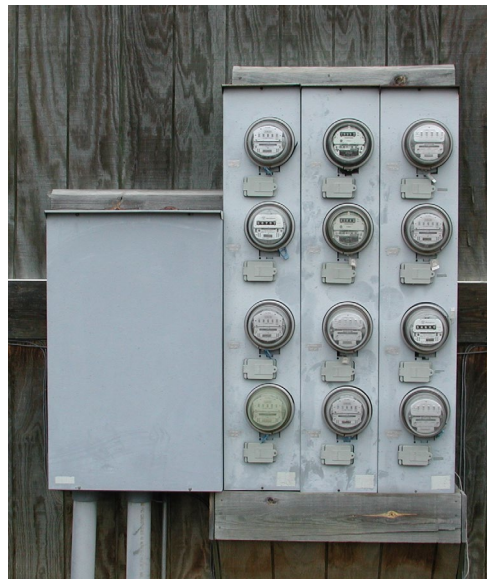


See Drawing 3 for more details.

Platte-Clay Electric Cooperative, Inc. Other Residential Meter Base Installations



320-amp Underground Service



Multiple-Metered Dwelling

METERING APPENDIX

Platte-Clay Electric Cooperative, Inc.

1-phase 200-amp Meter Base Installation

Base located **WITHIN A DISTANCE OF 225 FEET of source**, Standard Base for City lots, Double lug or 320 amp base for lots over 1/3 acre.

ANY DEVIATION MUST BE PRE-APPROVED BY THE ENGINEERING DEPT.

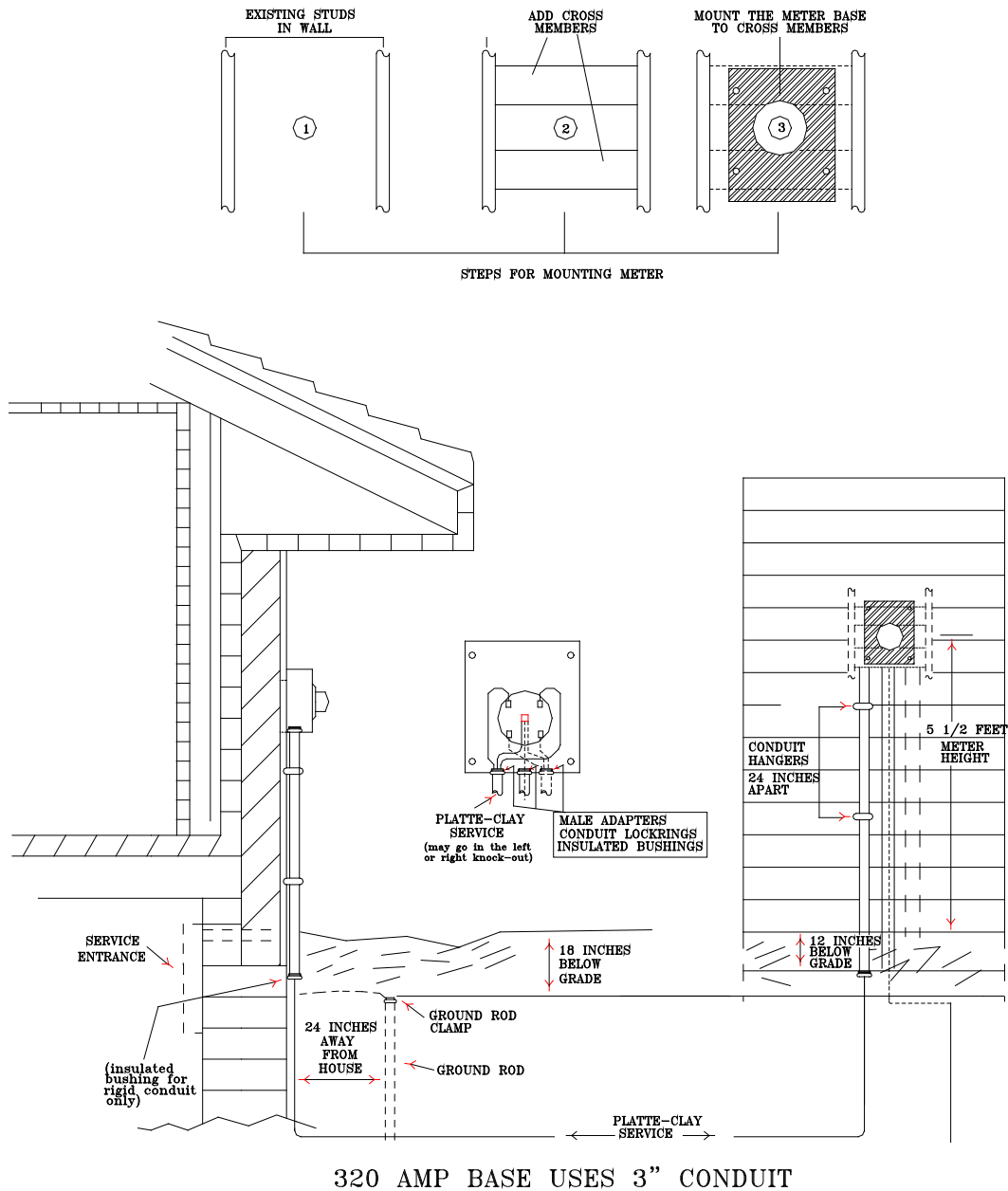
METER BASE AND MATERIAL MUST BE INSTALLED PRIOR TO FINAL INSPECTION OR CONSTRUCTION MAY BE DELAYED.

1. Platte-Clay Electric encourages members to locate air conditioner compressors, decks and other obstacles away from the meter base.
2. Contact Platte-Clay Electric before pouring any concrete near meter base. Slip-joint required on conduit where concrete facilities are installed near meter base or as specified by Staking Engineer.
3. Meter base shall be mounted on two cross members, minimum 2"x4", with 1 1/4" lag screws.
4. Member's service phase and neutral conductors are to be connected to the bottom lugs of meter base. Ground wire shall be connected from the bottom.
5. Member shall provide conduit and hangers for Platte-Clay's service wire. Member shall install conduit and hangers on the right or left side for a 200-amp base. On a 320-amp base, it must be on the left side.
6. A steel or iron ground rod shall not be less than 5/8" in diameter and not less than 8' in length, OR a nonferrous ground rod shall not be less than 1/2" in diameter and not less than 8' in length. The top of the ground rod shall be a minimum of 18" deep and 24" from the structure. Loosely backfill and mark the ground rod location until meter base inspection.
7. #6 or greater grounding electrode conductor shall be installed in 1/2" PVC conduit, from bottom of meter base extending a minimum of 12" below grade.
8. Materials to be furnished by the member for Platte-Clay service are:
 - a) ground rod (see item 6 above);
 - b) grounding electrode conductor (see item 7 above);
 - c) conduit, insulated bushing, lockrings, male adapters and hangers for grounding electrode conductor, and member's conductors);
 - d) 2" conduit, insulated bushings, lockrings, male adapters and hangers for Platte-Clay's service wire.
 - e) 3 bolt in lugs for 320 amp bases only
9. **Meter base shall be located on the side of structure closest to the transformer or service dome.**
10. Grade of the site must be within 3% of final before meter base inspection and all material must be installed.
11. Installation shall conform to the National Electric Code & National Electric Safety Code.
12. If you have any questions, call the Engineering Department @ (Metro) 628-3121 or 1-800-431-2131.

***320 AMP-SAME AS ABOVE -MUST BE 3" PVC & HANGERS**

Platte-Clay Electric Cooperative, Inc. 200-amp Meter Base Installation

Underground Service



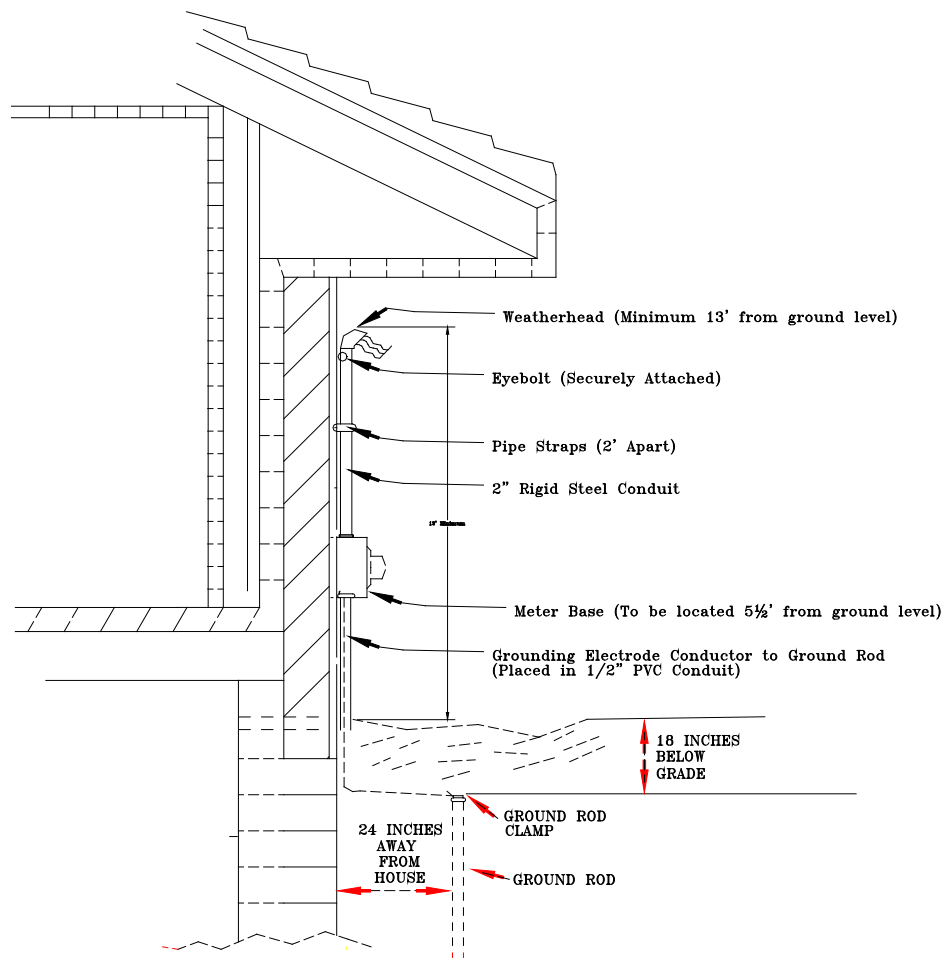
Drawing 1

Platte-Clay Electric Cooperative, Inc.

200-amp Meter Base Installation

Overhead Service

1. 200 Amps maximum available with this service
2. All items shown on this sheet, except meter base are furnished by member.
3. All items shown on this sheet are installed by member.
4. A steel or iron ground rod shall not be less than 5/8" in diameter and not less than 8' in length. OR. A non-ferrous ground rod shall not be less than 1/2" in diameter and not less than 8' in length. Top of ground rod shall be 18" deep and 24" from structure.
5. Location of eye bolt must be pre-approved by Platte-Clay Engineering Department.
6. Member's service phase/neutral conductors are to be connected to the bottom lugs of meter base. Ground wire shall be connected from the bottom.
7. The grounding electrode conductor shall be installed in 1/2" PVC conduit, extending a minimum of 18" below grade
8. If you have any questions, please call Platte-Clay Electric Cooperative.



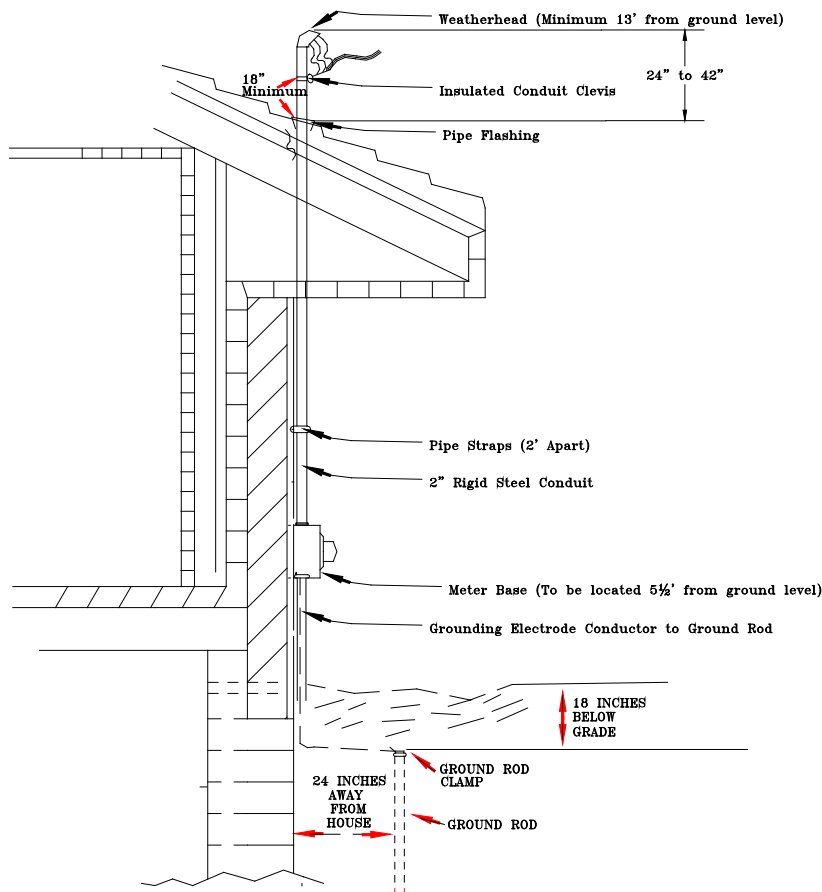
Drawing 2

Platte-Clay Electric Cooperative, Inc.

Meter Base Installation

Overhead Service

1. 200 Amps maximum available with this service
2. All items shown on this sheet, except meter base are furnished by member.
3. All items shown on this sheet are installed by member.
4. A steel or iron ground rod shall not be less than $\frac{5}{8}$ " in diameter and not less than 8' in length. OR. A non-ferrous ground rod shall not be less than $\frac{1}{2}$ " in diameter and not less than 8' in length. Top of ground rod shall be 18" deep and 24" from structure.
5. If conduit extends more than 42" above roof, it must be braced or guyed.
6. Member's service phase/neutral conductors are to be connected to the bottom lugs of meter base. Ground wire shall be connected from the bottom.
7. The grounding electrode conductor shall be installed in $\frac{1}{2}$ " PVC conduit, extending a minimum of 18" below grade
8. If you have any questions, please call Platte-Clay Electric Cooperative.



Drawing 3

Platte Clay Electric Cooperative

3-Phase Wye Underground 200 Amp Service Installation

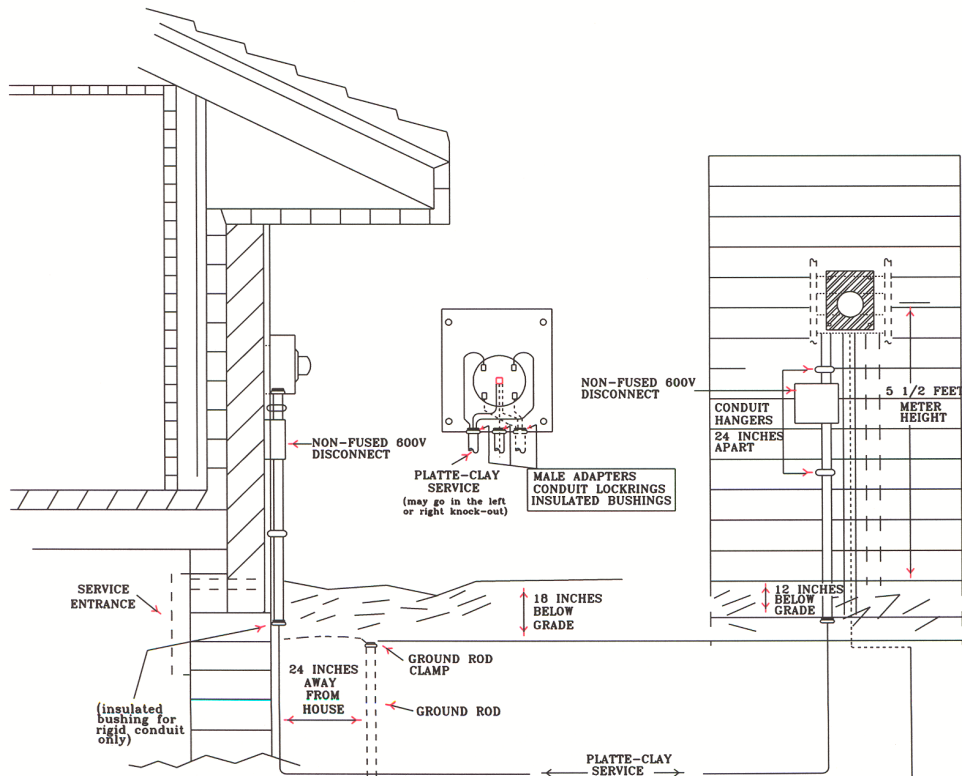
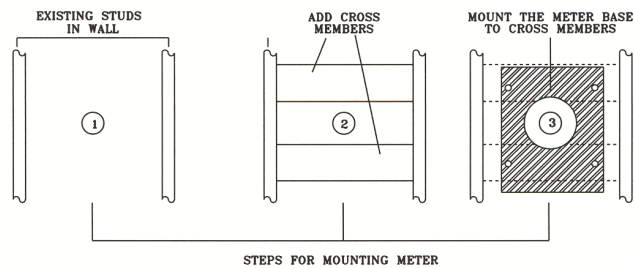
ANY DEVIATION MUST BE PRE-APPROVED BY THE ENGINEERING DEPT.

METER BASE AND MATERIAL MUST BE INSTALLED PRIOR TO FINAL
INSPECTION OR CONSTRUCTION MAY BE DELAYED.

1. Platte-Clay Electric encourages members to locate air conditioner compressors, decks and other obstacles away from the meter base.
2. Contact Platte-Clay Electric before pouring any concrete near meter base.
3. Meter base shall be mounted on two cross members, minimum 2"x4", with 1 1/4" lag screws.
4. Member's shall furnish and install one non-fused 600-V, 200 amp outdoor weather tight disconnect on the line side of the meter.
5. Member's service phase and neutral conductors are to be connected to the bottom lugs of meter base. Ground wire shall be connected from the bottom.
6. Member shall provide conduit and hangers for Platte-Clay's service wire. Member shall install conduit and hangers on the right or left side for a 200-amp base.
7. A steel or iron ground rod shall not be less than 5/8" in diameter and not less than 8' in length OR, a nonferrous ground rod shall not be less than 1/2" in diameter and not less than 8' in length. The top of the ground rod shall be a minimum of 18" deep and 24" from the structure. Loosely backfill and mark the ground rod location until meter base inspection.
8. #6 or greater grounding electrode conductor shall be installed in 1/2" PVC conduit, from bottom of meter base extending a minimum of 12" below grade.
9. Materials to be furnished by the member for Platte-Clay service are:
 - a) ground rod (see item 6 above);
 - b) grounding electrode conductor (see item 7 above);
 - c) conduit, insulated bushing, lockrings, male adapters and hangers for grounding electrode conductor, and member's conductors);
 - d) 2" conduit, insulated bushings, lockrings, male adapters and hangers for Platte-Clay's service wire.
 - e) non-fused 600-V outdoor weather tight disconnect (see item 4 above)All material must be installed.
10. **Meter base shall be located on the side of structure closest to the transformer.**
11. Grade of the site must be within 3% of final before meter base inspection.
12. Installation shall conform to the Nat'l Electric Code & Nat'l Electric Safety Code.
13. If you have any questions, call the Engineering Department @ (Metro) 628-3121 or 1-800-431-2131.

Platte-Clay Electric Cooperative, Inc. 3-Phase Wye Underground 200-amp Meter Base Installation

Underground Service



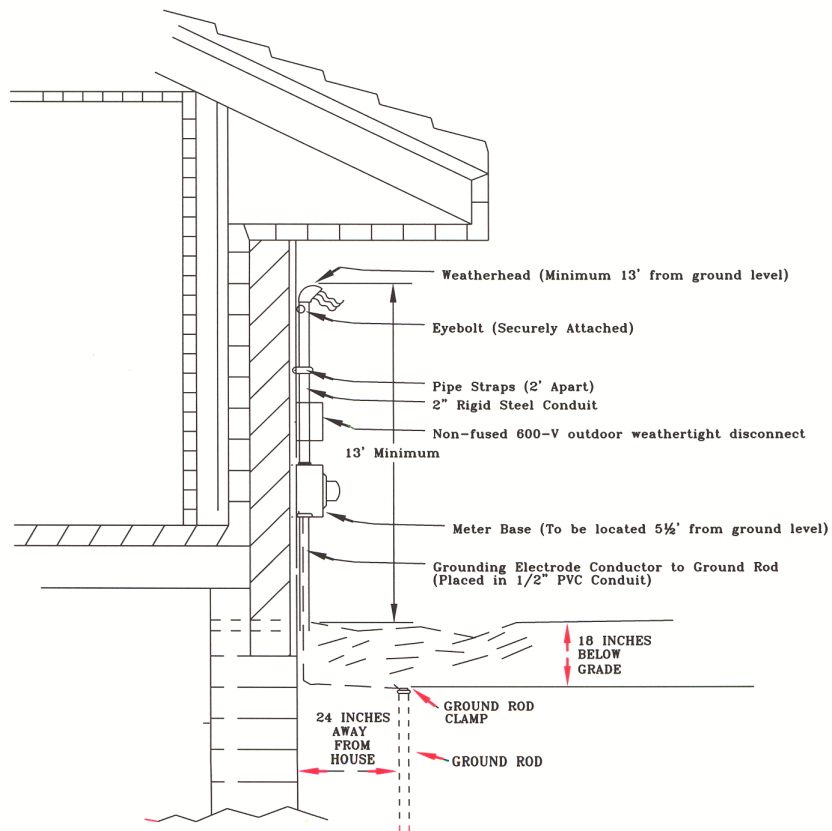
Drawing 4

Platte-Clay Electric Cooperative, Inc.

3-Phase Wye Overhead 200-amp Meter Base Installation

Overhead Service

1. 200 Amps maximum available with this service
2. All items shown on this sheet, except meter base are furnished by member.
3. All items shown on this sheet are installed by member.
4. A steel or iron ground rod shall not be less than 5/8" in diameter and not less than 8' in length. OR. A non-ferrous ground rod shall not be less than 1/2" in diameter and not less than 8' in length. Top of ground rod shall be 18" deep and 24" from structure.
5. Location of eye bolt must be pre-approved by Platte-Clay Engineering Department.
6. Member's service phase/neutral conductors are to be connected to the bottom lugs of meter base. Ground wire shall be connected from the bottom.
7. The grounding electrode conductor shall be installed in 1/2" PVC conduit, extending a minimum of 18" below grade
8. If you have any questions, please call Platte-Clay Electric Cooperative.



Drawing 5

Material Lists

Platte Clay Electric Cooperative, Inc.

Meter Base Installation

Material Requirements for a Overhead Service Installation

- Two-2"x4" cross members
- Four-1 1/4" lag screws
- Insulated bushing, required type
- Sufficient Entrance Cable 600 volt
- Meter box hub
- Weatherhead, threadless
- Steel Conduit, galvanized, rigid
- Minimum of 3 Conduit Straps (2-hole) secured by wood screws
- One- Ground Rod (5/8"x8' Steel or Iron Ground Rod or 1/2"x8' Nonferrous Ground Rod)
- Sufficient #6 or greater grounding electrode conductor
- Sufficient 1/2" SC. 40 PVC to extend from the meter base to 1' below final grade
Two-Straps for 1/2" conduit

Material Requirements for an Underground Service Installation

- Two-2"x4" cross members
- Four-1 1/4" lag screws
- Sufficient 2" (200 amp) or 3" (320 amp) SC. 40 PVC to extend from the meter base to 1' below final grade
- One-Insulated bushing
- One-Lockring
- One-Male Adapter
- Two-Hangers
- One- Ground Rod (5/8"x8' Steel or Iron Ground Rod or 1/2"x8' Nonferrous Ground Rod)
- Sufficient #6 or greater grounding electrode conductor
- Sufficient 1/2" SC. 40 PVC to extend from the meter base to 1' below final grade
- Two-Straps for 1/2" conduit

TABLES

Table 1

Residential Line Extension Service Charges

1. Temporary Service...	\$100
2. Meter Pedestals...	
100 Amp - no breaker included	\$250
200 Amp – breaker included	\$375
3. Overhead Construction	
0-750 feet ...	\$1.00/ft
751-1500 feet ...	\$3.00/ft
1501-3000 feet ...	\$5.00/ft
3001+ feet ...	\$8.00/ft
4. Underground Construction	
• Subdivisions Developments – Primary Extensions	
0-1/3 Acre Average Lot size ...	\$100/lot
1/3-1.99 Acre Average Lot size ...	\$300/lot
2-2.99 Acre Average Lot size ...	\$625/lot
3-4.99 Acre Average Lot size ...	\$900/lot
5-6.99 Acre Average Lot size ...	\$1150/lot
• Lot Charge will be waived if developer installs conduit system in accordance with the Cooperative Standards	
• Subdivision Developments – Service drops	
0-1/3 Acre Average Lot Size...	\$50/lot
All Other Subdivision Lots...	\$250/lot
• Lot Charge will be waived if member/developer installs conduit system in accordance with the Cooperative Standards	
• Rural Service (Non-subdivision service as defined above)...	
0-750 feet ...	\$3.00/ft
751-1500 feet ...	\$5.00/ft
1501-3000 feet ...	\$7.00/ft
3001+ feet ...	\$10.00/ft

Table 2

Non-Permanent (Non-Residential) Line Extension Service Charges

1. Overhead Construction	
0-300 feet ... (\$300 minimum)	\$4.00/ft
>300 feet ...	\$8.00/ft
2. Underground Construction	
0-300 feet... (\$300 minimum)	\$6.00/ft
>300 feet...	\$10.00/ft
3. Meter Pedestal	
100 Amp - no breaker included	\$250
200 Amp – breaker included	\$375

Table 3
Commercial Line Extension Service Charges

Overhead Construction

New single phase overhead transformer...	\$2500
New three phase overhead transformer bank...	\$7500
Single phase line construction...	\$10.00/ft
Three phase line construction...	\$13.00/ft

Underground Construction

New single-phase pad mount transformer...	\$5000
New three-phase overhead transformer bank...	\$7500
New three-phase pad mount transformer bank...	
	10-75 kVA \$10,000
	150-225 kVA \$15,000
	500 kVA \$20,000
Single phase line construction...	\$15/ft
Three phase line construction...	\$22/ft

Table 4

Relocation of Electric Facilities

When a member or non-member requests a relocation of the Cooperative's facilities, the following shall apply:

1. Where, by reason of removal or relocation of electric facilities, the Cooperative receives the majority of the benefit, the Cooperative will pay for the relocation of facilities.
2. Where, by reason of removal or relocation of electric facilities, the member or non-member receives the majority of the benefit, the member or non-member will pay for the relocation of facilities.
3. Where, by reason of removal or relocation of electric facilities there are mutual benefits for both parties, Cooperative will evaluate the percentage of benefit for each party and allocate cost accordingly.
4. Minimum relocation Charge shall be \$300.00

Table 5
Street/Area Lighting

Establish Secondary Voltage	\$300
Secondary Extensions (over 100')	\$2.00/ft
Wood Poles	
30 ft...	\$150
35 ft...	\$200
40 ft...	\$270
Decorative Fixture	
Washington w/ Ribs ...	\$1800
Washington w/o Ribs ...	\$1500
Granville ...	\$1300
Arlington...	\$1500
Post Top...	\$1500
Street Light	\$1200
Park Lot Lights	\$1200

Call Before You Dig

It's The Law

If you are going to dig, call 48 hours in advance to have utility lines marked.

1-800-DIG-RITE
1-800-344-7483