JCREMC
Your Electric Cooperative

Electric Service and Meter Manual

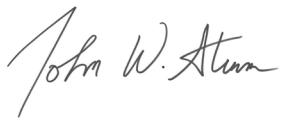
Department of Engineering

This copy of the revised “Electric Service and Meter Manual” is provided to you for your use in the layout and installation of electrical service on JCREMC’s territory. This manual establishes rules and regulations as well as the latest practices in service installations.

The effective date of this manual shall be September 1, 2022. After this date, all previous editions are hereby suspended.

Several changes have been made in former installation practices. It will be beneficial if you will acquaint yourself with the revised practices contained in the manual.

Sincerely,



John Sturm, CEO
JCREMC

Contents

Foreword

This booklet is issued by JCREMC as a reference and guide to its rules and regulations for the connection and supply of electric service. It is intended for the use of electrical contractors, engineers, architects and others engaged in the planning or installation of electric service and metering facilities which are to be served from the distribution lines of JCREMC.

The information contained herein sets out conditions under which electric service will be supplied. In the event conditions arise which are not specifically covered in this booklet, JCREMC shall be consulted to determine the applicable requirements. JCREMC

has representatives in the Engineering Department who will discuss any problem that may arise concerning the use of electric service.

JCREMC reserves the right to review and approve the design and layout of all new electrical service facilities to be connected to JCREMC system to assure the customer's equipment is compatible with JCREMC design standards and will not in any way diminish continuity or quality of service to its customers.

All wiring installations shall conform to the requirements of local ordinances and inspection authorities including but not limited to NEC, NESC, NFPA, and INDIANA BUILDING CODE as well as rules and regulations of JCREMC. All installations must be approved by the inspection authority having jurisdiction over the area in which they are located before connection will be made.

Section 1: General Information

Alterations and New Services - Changes in Size of Service

JCREMC should be notified well in advance of any new additions to electrical installations so it will be possible for JCREMC to take such measures as will enable it to continue rendering adequate service. The connection of additional equipment to existing lines may result in unsatisfactory operation until JCREMC is able to increase capacity to take care of the added load.

If you must revise or relocate service entrance equipment or change connections, the changes must conform to JCREMC requirements and latest applicable codes. Contact JCREMC business office to schedule an appointment with an engineer to discuss the project prior to work being started.

Automatic Reclosing Equipment

JCREMC has equipment installed at its substations which provide rapid opening and automatic reclosing of its distribution circuits to clear temporary faults which occur on the circuits. It is the responsibility of the consumer to provide adequate protective equipment for all electrical apparatus of the consumer that might be adversely affected by JCREMC reclosing equipment.

Auxiliary Power Sources

Auxiliary power supply covered under special contract or emergency generating units to be used only in the event of failure of JCREMC power supply, shall be connected through suitable switches to ensure that the consumer's emergency generation is always isolated from JCREMC lines. Portable generators or temporary power sources shall not be connected to the consumer's electrical system in such a way as to back feed to the JCREMC facilities. This creates an extreme hazard to JCREMC employees working on lines and equipment. Contact JCREMC engineering department.

Current Transformer (C.T.) and Cabinet Installation

Contact JCREMC engineering department. 600 amp or 277/480 refer to diagram.

Easement - Right-of-Way - Tree Trimming

Line extensions are contingent upon the applicant securing the necessary easements, rights-of-way, and tree trimming permits. JCREMC shall be under no obligation to start construction until satisfactory easements, rights-of-way, and tree clearances have been obtained.

Extension of Lines

Where there is a reasonable prospect that capital expenditure is warranted, the JCREMC will extend its lines and service facilities in accordance with the conditions set forth in its Rules and Regulations (RGF Rule 25). All applications for line extensions shall be referred to JCREMC Engineering Department.

Foreign Attachments

Radio or television antennas, floodlights, signs, wires, cables, or other attachments shall not be connected to or installed on JCREMC pad mount transformers, metal clad switchgear, poles, crossarms, structures, or other facilities. Antennas, floodlights, signs, etc. shall not be installed so they can fall on JCREMC lines or structures. Attaching advertising signs to JCREMC poles is prohibited by JCREMC rules and regulations.

Meter Bases

Meter bases for permanent service are available at the JCREMC office. Permanent services in subdivisions are required to provide their own meter bases meeting JCREMC specifications starting on 2/1/2021. These are the only meter bases acceptable for permanent service with the following exceptions upon approval of the JCREMC Engineering and Metering Departments:

- All industrial, commercial and large power applications
- Temporary
- Pre-approved modular meter centers for apartment complexes
- With approval of JCREMC Engineering Department

The specifications for meter bases are as follows.

200 amp URD meter base

4 terminal / with bypass handle
at least 16" X 20"
accept up to 350 mcm
3"conduit knock out (bottom)

400 amp URD meter base

4 terminal / with bypass handle
at least 18" X 24"
accept up to 350 mcm
3"conduit knock out (bottom)

Overhead Service

An overhead service drop must maintain proper clearance from windows, porches, fire escapes, similar structures and be located so it will not be necessary to climb on roofs to make a connection or disconnection. A suitable support of enough strength for the attachment of the service wires must be provided by the consumer.

Service Demand

Demand as used in this book, shall mean the maximum kilowatt demand as determined by JCREMC.

Service Disconnecting Means

When parallel service entrance conductors are used, the disconnects must be grouped on either the inside or outside of the building.

Single Phasing Protection

It shall be the customer's responsibility to provide and maintain protection for multi-phase equipment that may be adversely affected by a loss of phase condition. JCREMC assumes no liability for equipment damage by a loss of phase condition.

All motors connected to JCREMC lines should be protected to ensure that such motors will be disconnected from the lines in case of abnormal voltages. Three phase motors should be protected against single-phasing (loss of one phase), voltage unbalance, low voltage and reverse phase sequence.

Meter base location

The point of termination for either an overhead service drop, or an underground service lateral shall be located no further than 150 feet.

Structures deemed as temporary by the JCREMC Engineering Department (normally structures without a permanent foundation) shall be served as shown on pages 12 and 18. Engineering approved pedestal.

Types of Service Available

JCREMC furnishes 60 hertz alternating current service at designated standard voltages. All types of service are not available in every locality and the type of service to be furnished at a location is determined by one or more of the following conditions.

- Type of service available at the customer's location
- Type and size of load to be served
- Temporary or permanent service

Section 2: Secondary Service

Secondary Voltages Available

After determination as to whether electric service will be supplied overhead or underground in accordance with JCREMC's underground policy and any legal requirement. JCREMC will specify one of the following secondary service voltages:

A. Single phase, 120/240-volt, three wire
B. Three phase, 120/208-volt, four wire, wye
C. Three phase, 277/480-volt, four wire, wye
D. Other voltages with engineering department approval

Service at other voltages will be supplied only in special cases at the discretion of JCREMC. All requirements listed in this section shall be adhered to unless prior approval is obtained from JCREMC Engineering Department.

Requirements for Service

A. Single phase, 120/240-volt, three wire, will be provided for loads not to exceed 100 KW demand.
The largest individual service disconnecting means shall not exceed 600 amperes. Services that exceed 600 amperes must be approved by JCREMC Engineering Department.

The largest individual single-phase motor for this service shall be 10 HP unless an investigation by the JCREMC Engineering Department indicates that a larger size is permissible.

B. Three phase, 120/208-volt, four wire, wye may be provided for loads not to exceed 1,000 kW demand.
The largest individual service disconnecting means shall not exceed 3,000 amperes.

Where the service disconnect means does not consist of a single main switch or circuit breaker, the combined rating of the individual switches or circuit breakers shall not exceed 3,000 amperes.

The largest individual three phase motor for this service shall be 20 HP unless an investigation by the JCREMC Engineering Department indicates that a larger size is permissible.

C. Three phase, 227/480-volt, four wire wye

The largest individual service disconnecting means shall not exceed 3,000 amperes without engineering approval.

Consumer specifies their wire size on load data sheet.

The largest individual three phase motor for this service shall be 40 HP unless an investigation by JCREMC Engineering Department indicates that a larger size is permissible.

Load Balance

Wiring on 3-wire, single-phase installations should be arranged to connect load from one phase to neutral without exceeding 60 percent of the total connected load. The load on three-phase installations should be arranged so that the difference in calculated amperage between any two-phase wire is not greater than 20 percent of the calculated amperage per phase if the load were balanced.

Rapidly Fluctuation of Pulsating Loads

The limitations given for single phase motors are for manually and automatically controlled motors with moderate starting frequencies up to approximately ten times per hour. Motors with high starting frequency duty or with severe pulsating characteristics or other fluctuating loads of high magnitude and /or frequency shall be referred to JCREMC Engineering Department to determine how such loads will be served.

Voltage Regulation

The standards of allowable voltage limits and non-instantaneous voltage regulations for four wire delta or wye service will conform to those normally supplied for lighting service. However, instantaneous voltage regulation may exceed that normally experienced on lighting service depending upon the relation of motor sized to the secondary length and the KVA rating of the transformer bank supplying this service.

Underground Service

Single Family Dwelling

Underground services will be installed in accordance with the following division of responsibilities:

1. JCREMC will furnish and install primary cable.
2. JCREMC will furnish and install all riser pole conduits for cables installed by the JCREMC.
3. JCREMC will locate, furnish and install transformer pad and transformer.
4. JCREMC will furnish and install all secondary cable between the pad mount transformer and line side of point of demarcation.
5. Contractor shall furnish and install utility approved connectors
6. Contractor shall clear all trench routes of all surface obstructions and grade all trench routes to within 4 inches of final grade. In the case of wooded areas, the contractor shall consult the Engineering Department to determine the most feasible trench route.

Multi-Family Dwelling Units

Contractor shall furnish schedule 40 PVC as required by JCREMC and install conduits 30 inches deep as directed and sized by JCREMC for the installation of JCREMC secondary cables, when required to assure the proper maintenance of service cables installed under paved areas, ornamental plantings, and other proposed or future surface obstructions, or when more than two secondary circuits are required in a common trench. These conduits shall be extended five feet beyond the obstruction or to such a point as designated in writing by JCREMC. If no paved area or other obstructions or conditions are involved, the contractor shall furnish and install 3-inch schedule 80 conduit from the meter equipment or service junction box in trench, to the JCREMC designated point, at a minimum depth of 18 inches below final grade.

Multi-Family Dwellings

Information relative to the location of metering facilities and the type of metering equipment to be installed must be obtained and approved by JCREMC designated personnel before any work is started on multiple meter installations.

When ganged meter fittings are desired, the customer shall advise JCREMC, who in return will determine if the equipment is approved and/or available.
When greater than 4 gang meter bases are desired, upon approval by JCREMC, the consumer may provide and install the approved gang base.

Only locations that are readily accessible and agreeable to the utility will be acceptable.

Mobile Homes

Due to the unique nature of the mobile home park, the customer shall contact the JCREMC Engineering Department before any preliminary work begins. Designated JCREMC personnel will have access to in-house specifications and can determine which apply.

Commercial and Industrial Buildings

Contractors shall furnish and install conduits 36 inches deep as directed and sized by JCREMC for the installation of the JCREMC secondary cables. Commercial services other than building services will be installed in accordance with JCREMC specifications.

1. Contractor shall furnish secondary conduit and cables between the riser pole or pad mount transformer and indoor switchgear.
2. Maximum cable size to a riser pole is 500 MCMIL and maximum cable size to a pad mount transformer is 750 MCMIL.
3. Maximum number of conduits to a riser pole is 4 and maximum number of conduits to a pad mounted transformer is 9. Both cases are limited to one circuit per conduit.
4. Contractors with services requiring more than 9 conductors per phase shall submit plans of the proposed installation to JCREMC Engineering Department for approval 30 days prior to the start of construction.
5. Contractor shall furnish and install 7-foot, concrete filled, and 6-inch steel post as specified by JCREMC Engineering Department to protect pad mount transformers when exposed to vehicular traffic.
6. The contractor, in some cases, may elect to install the service line from JCREMC secondary distribution system to the meter base or junction box. Before installations of this type, the contractor shall submit plans of the proposed installation to the JCREMC Engineering Department for approval and enter into an agreement with JCREMC prior to installation.

Section 3: Metering

Information on metering problems, available equipment, and general requirements can be obtained at JCREMC. The two general categories of metering installations are Residential and General Service. The term general service

includes both commercial and industrial applications of electric service. Following is a brief outline of the principal utility requirements relative to the metering installation for each of these categories. At the end of this section are drawings depicting typical installations covered in this manual.

Equipment for Residential Installation:

200 – 400 Ampere

Overhead

JCREMC will provide a meter base available in single 2, 3 and 4 gang troughs. Singles are rated at either 200 or 400 amperes. Ganged troughs are rated at 200 amperes per position.

Underground

JCREMC will provide a meter base rated at 200 or 400 amperes for residential installations which are to be served underground. These fittings are available in single 2, 3 and 4 gang troughs. Ganged troughs are rated at 200 amperes per position.

401 Ampere and Above

Overhead or Underground

JCREMC will furnish a self-contained meter base or C.T. from metering.

600 – 800 Ampere 36 X 36 **1000 – 1200 Ampere 48 X 48**

Overhead or Underground

JCREMC requires that the service shall be underground unless overhead is approved by JCREMC Engineering Department.

Meter Centers for Network Metering

With prior approval from JCREMC Engineering Department, meter centers may be provided by the customer as part of the service equipment.

Meter centers for single phase, 120/240 volt shall have a maximum rating of 600 amperes.

Meter centers for network, 120/208-volt meters only, shall have a three phase four wire main switch and three phase, four wire bussing with the individual meters balanced across the three phases and neutral. Single phase, 120/240-volt meter centers shall not be used to supply network, 120/208-volt metering.

Metering facilities are to be located on the outside of the building in an **accessible meter location, agreeable to JCREMC.** Metering shall be installed at a height of 5-feet (approximately eye level) above final grade, measured to the center of the meter on the building. Objectionable metering facilities may be located on a customer owned and installed meter support, approved by JCREMC.

Meter Identification

Each individual meter fitting in all meter installations shall be correctly identified by a permanent form of metal tag (or the equivalent thereof) which indicates the building space and type of service to be served by each meter. *Markings with pencil, crayon, paper tags, permanent marker, etc. will not be acceptable.*

Insofar as practical, it is preferable in multi-family dwellings that the numbering arrangement is in an orderly sequence in each group. Multi-meter installations not identified will not be connected.

JCREMC will install and bill meters in multiple installations according to markings supplied by the electrical contractor and under no circumstances assume responsibility for errors which are the result of incorrectly identified meter fittings.

Commercial and Industrial Metering

UNDER 600 VOLT

In all cases the meter location and type of facilities to be installed are subject to approval by JCREMC prior to starting construction.

If the approved location is inside the building, it must be clean, dry, illuminated and readily accessible. A clear working space of at least 4 feet must be maintained in front of the metering facilities. Safe and ready access to this area shall be provided.

200-400 Amperes service 120/208 Volt

Self-contained meters (meters installed without metering transformers) may be utilized for installations either underground or overhead in this range of capacities, where demand metering will not be required. Self-contained meters shall be installed ahead of the service disconnecting means in all cases.

Exceptions:

- Where a group of more than 6 meters is to be connected on a single set of service entrance conductors.
- Installations in the networked areas where a main disconnect ahead of each meter are always required for safety.

Above 400 Amperes and/or 480 Volt

Installations for metering a customer's load above 400 amperes capacity are referred to as transformer rated installations which require the use of metering transformers in addition to the actual meter or meters. Normally the device for mounting the necessary metering transformers, as well as the meter, is furnished by JCREMC. (The exception would be an installation where a customer purchases a free-standing switchgear in which case the metering transformers would be installed in a separate sealable compartment in the switchgear only with written approval).

Indoor Installations

Indoor installations are only permitted with written approval from JCREMC Engineering Department.

When it is necessary to locate the metering equipment inside the building, the utility will furnish an enclosure for the metering transformers suitable for the size and type of installation being made. This enclosure is to be mounted in conformance with the following specifications:

- A rigidly mounted board of approved material shall be provided between the wall and the enclosure. This board shall extend 24 inches above the entire length of the cabinet top.
- The cabinet shall be installed at a height of 54 inches above the floor to the top of the cabinet.

An illuminated clear working space of at least 4 feet must be maintained in front of the metering facilities.

Safe and ready access to this shall be provided.

Underground Service

When underground service is to be provided, JCREMC will provide steel outdoor enclosure which serves as a termination point for a single underground service (200 to 1200 Amperes inclusive) and as an enclosure for both the metering transformers and meters.

Services Over 1200 Amperes

Services of this size only permitted with approval from JCREMC Engineering Department.

Maintaining Meters in Operation

It is unlawful to break or remove seals, meter sealing rings or locking devices on meters, instrument transformers, metering devices or to disconnect meters from service. Notify JCREMC to have service disconnected. Only JCREMC personal can remove seal, locking device or disconnect meter from service. A person or persons responsible for meter tampering, unmetered electric service or theft of electric energy shall be subject to service termination and punishment by fine or imprisonment.

Miscellaneous Information

Consumers shall furnish and install post to protect meter cabinets, junction boxes, conduits, transformers and other facilities as specified when exposed to vehicular traffic. The post is to be a 7-foot-long 6-inch steel pipe, concrete filled, set in concrete and extended 4 feet above grade. Contact JCREMC for approval of post arrangement.

The electrician should take precaution when adding any loads to an existing installation to ensure that JCREMC has been contacted for their approval.

On a three phase, four wire, delta service, the phase conductor having the higher voltage to ground shall be permanently marked orange at any point of connection where the conductor is present and must land on right side of meter base and center of panel. Delta service will be provided with JCREMC Engineering Department approval only.

Unacceptable Meter locations

- Above an opening or obstruction
- On mobile homes, recreational vehicles or construction trailers or without permanent structure
- Under a porch, deck, roof or carport, whether opened or closed
- Within an enclosure
- Behind shrubbery planted close to a building
- Less than 18 inches from any inside corner
- On the side of a building adjacent to a driveway or alley where subject to vehicular damage
- Within reach of a door, unless provisions are made with door stop or chain to prevent door opening against the meter
- Wherever it creates a hazard or inconvenience to JCREMC
- Inside an enclosed space

Metered and unmetered conductors shall not be installed in the same conduit, raceway, junction box or switch. Once it leaves the meter base it can't return.

Metering on Poles and Underground Facilities

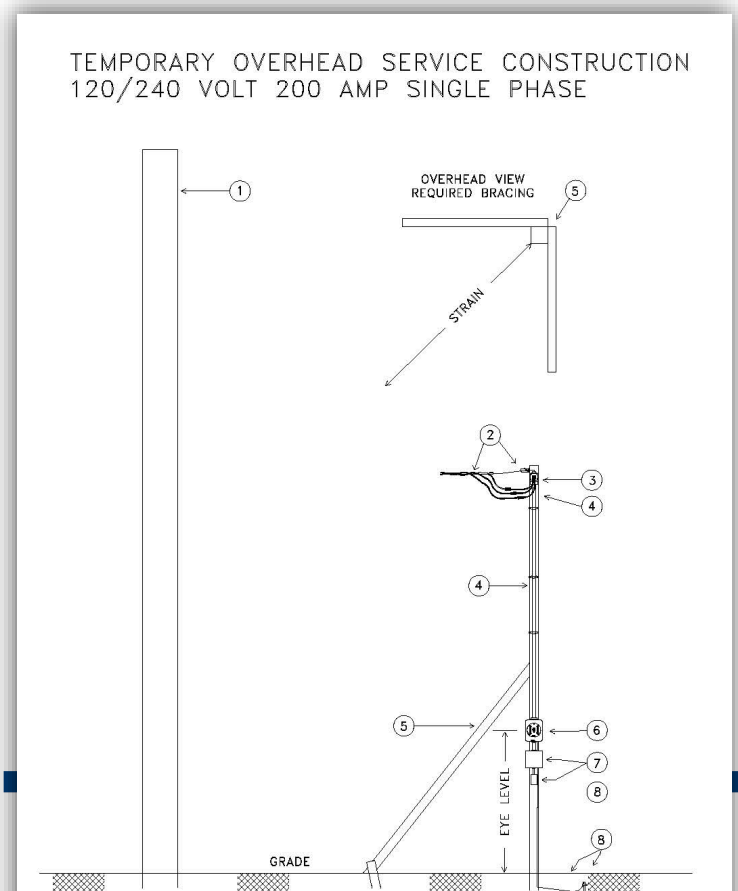
Meter installations on utility poles will only be permitted with approval from JCREMC Engineering Department, prior to installation.

All metering equipment for permanent service is available at JCREMC office and is the only equipment acceptable for permanent service without written approval from JCREMC Engineering Department.

Section 4: Overhead Temporary Service Installation Guide

Overhead Service Installation Guide for Temporary Services

1. Set the temporary within a 50-foot radius of the source of power and clear of construction traffic
2. Provide enough height on the structure to permit an attachment at least 12 feet above ground (or more if clearance is required)
3. Securely brace the temporary against the strain of the service wires
4. Install ground rod, ground wire, and a one-bolt ground rod clamp.
5. After the installation has been completed, call the JCREMC business office and request temporary service connections
6. Always remember to contact INDIANA 811 for locates before digging



120/240 Volt, 60-200 AMP Single Phase

Items as shown on the following diagram:

1. Existing or proposed JCREMC pole provided and installed by JCREMC
2. Service drop, and wire holder supplied by JCREMC
3. Weather head and conduit with 36 inches of service entrance conductor (minimum size shall be #6 aluminum) stubbed out.
4. Minimum 4-inch x 4-inch structure
5. Views of required braces and stakes
6. Meter base
7. Disconnect, Service equipment with ground fault interrupter
8. Ground rod, copper clad, and one-bolt ground rod clamp

Overhead Service Installation Guide for Permanent Services

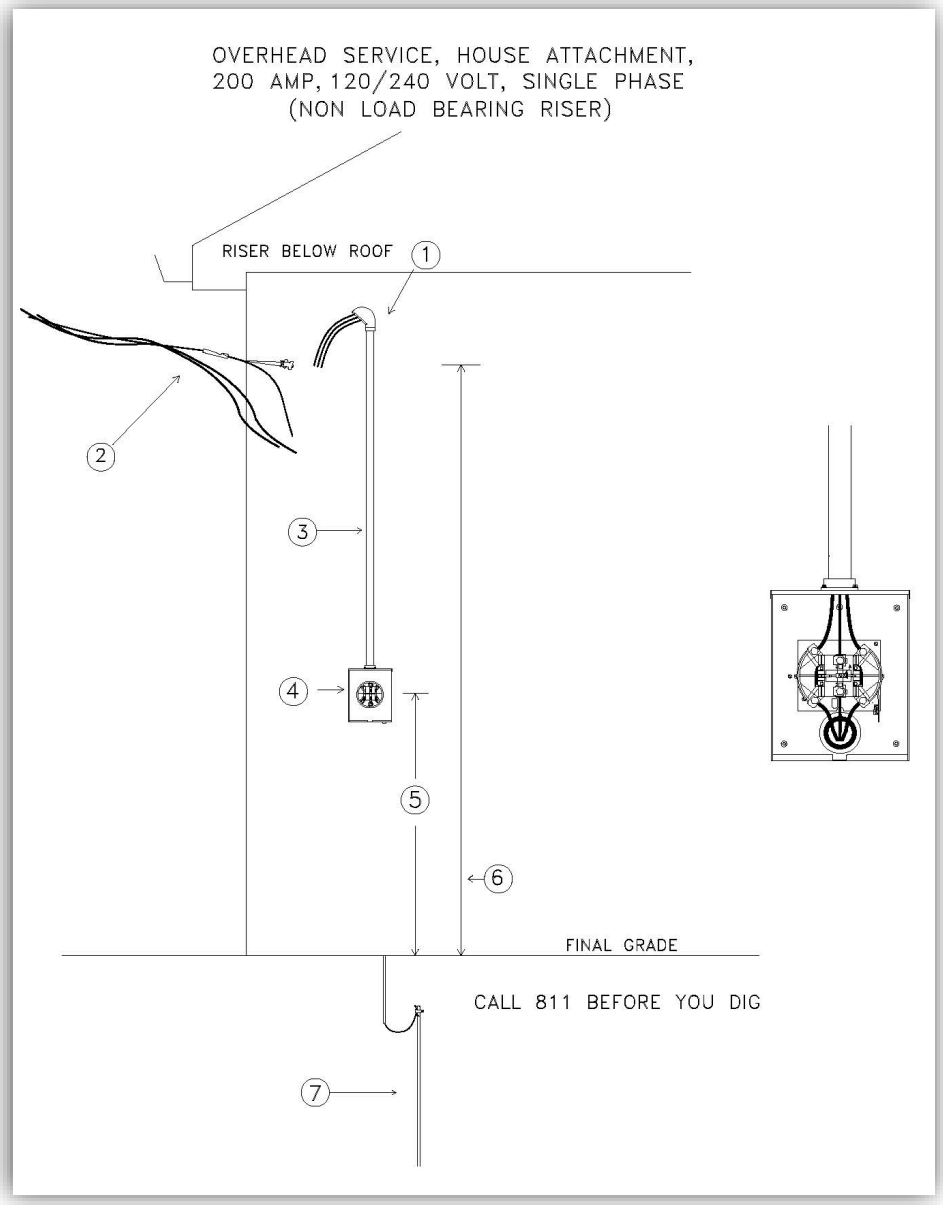
1. The JCREMC Engineering Department will determine all service routes. An appointment with an engineer will be necessary to determine the service route, location of new power facilities, clearing work to be done, and the location of the meter. Appointments are to be made through the JCREMC business office.
2. Install the meter base and the entrance cable between the main panel and the meter base. The meter is to be set at 5'-0" to center of meter of final grade sidewalks, patios, decks, etc.
3. Install a minimum of 2-inch rigid steel conduit for load bearing riser and a minimum of 2-inch schedule 80 PVC, or rigid steel conduit for a non-load bearing riser, with riser entrance wire extending at least 18 inches through the weatherhead. Mark the neutral at the weatherhead. The weatherhead is to be high enough to meet code clearances above ground level (appropriate clearances must be maintained) and at least 24 inches above the roof lines for load bearing risers. For non-loading risers a point of attachment must be provided below the weatherhead and high enough to meet code clearances.
4. Where necessary, install a guy wire from the top of the riser, to a rafter, to secure the riser against the strain of the service wires. Under no circumstances shall a service be attached directly to a roof.
5. Inside main service disconnect(s) shall be located as approved by the authority having jurisdiction. Outside they shall be placed immediately adjacent to the service entrance. Outside main disconnect(s) shall be rain tight.
6. Ground wire must be connected at panel or disconnect and is not to connected in or run thru the meter base.
7. Ground rod with approved ground rod clamp. Reference local requirements for ground rod installation.
8. When your meter base installation has been completed, regarding the above items. IT must be inspected and tagged by local authority having jurisdiction. If no such authority exists, a JCREMC Hold Harmless Agreement must be signed. Service will not be connected if not approved by JCREMC even if approved by local authority. Then call the JCREMC business office and request permanent service

All load bearing risers must be capable of withstanding a 1500 lb. pull.

Overhead Service, House Attachment, 120/240 Volt, 200 AMP Single Phase

Items as shown on the following diagram:

1. Weatherhead with 18 inches of service entrance conductor stubbed out.
2. JCREMC service triplex, small swinging clevis and wedge clamp. (oval eye lag screw provided by and installed by consumer). Point of attachment must be below the weatherhead.
3. Minimum two (2) inch riser. (Rigid steel or Schedule 80 PVC only)
4. Meter base (supplied by REMC, installed by the consumer)
5. Meter base height to be 5 foot to center of meter.
6. Attachment height must meet code clearance requirements.
7. Ground rod with approved ground rod clamp. **Reference local requirements for ground rod installation.**

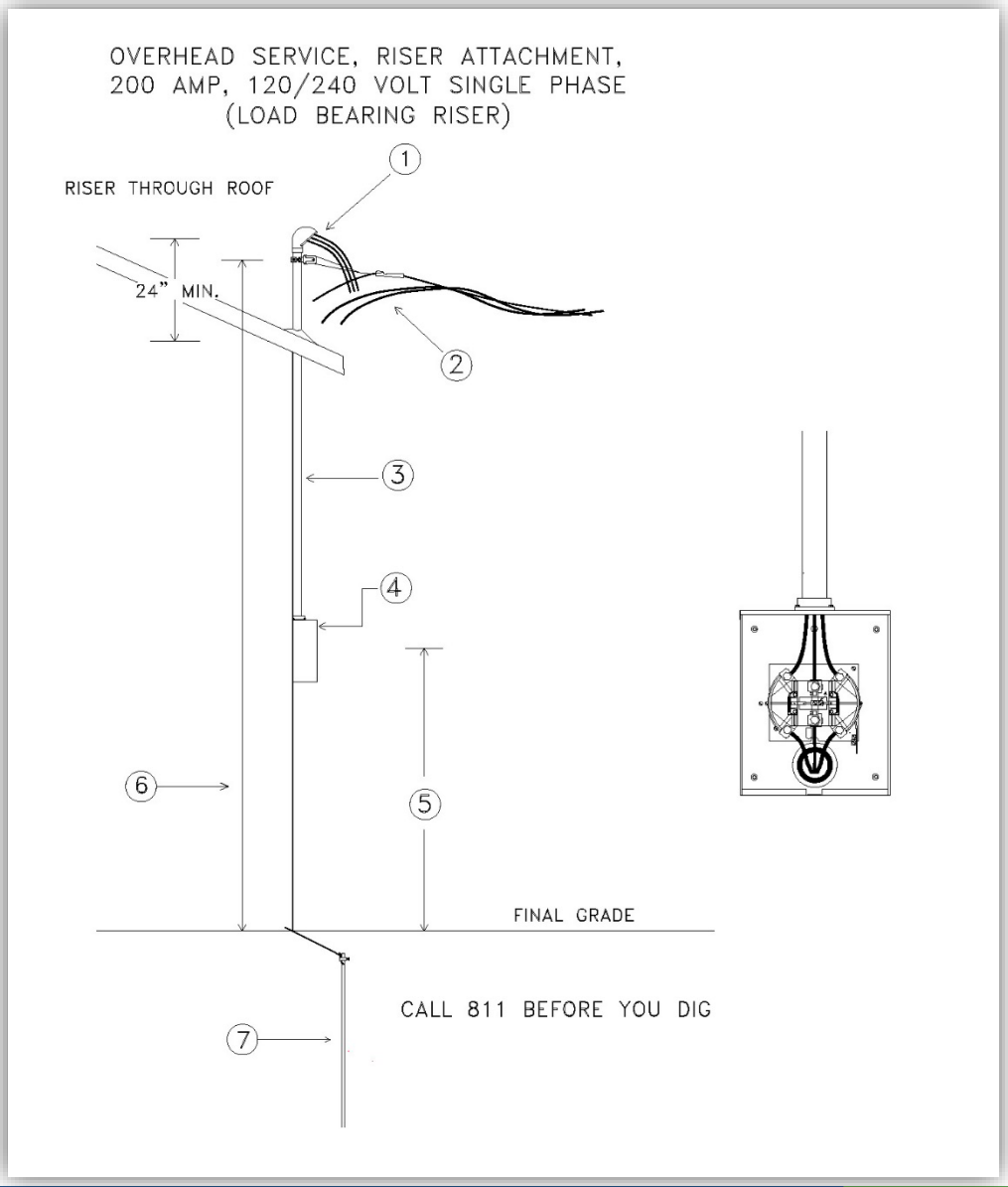


Overhead Service, House

Overhead Service, Riser Attachment, 200 AMP 120/240 Volt Single Phase

Items as shown on the following diagram:

1. Weatherhead with 18 inches of service entrance conductor stubbed out.
2. JCREMC service triplex, riser clevis and wedge clamp.
3. Minimum 2-inch rigid steel riser.
4. Meter Base (supplied by JCREMC, installed by the consumer).
5. Meter base height to be 5 foot to center of meter.
6. Attachment height must meet code clearance requirements.
7. Ground rod with approved ground rod clamp. **Reference local requirements for ground rod installation.**



Mobile/Modular Home Service

1. Service must be approved by the local authority having jurisdiction.
2. Meter pedestals to be approved by JCREMC. Meter base installed on building/structure only with prior approval from local authority having jurisdiction.

Section 5: Underground Installation Guide

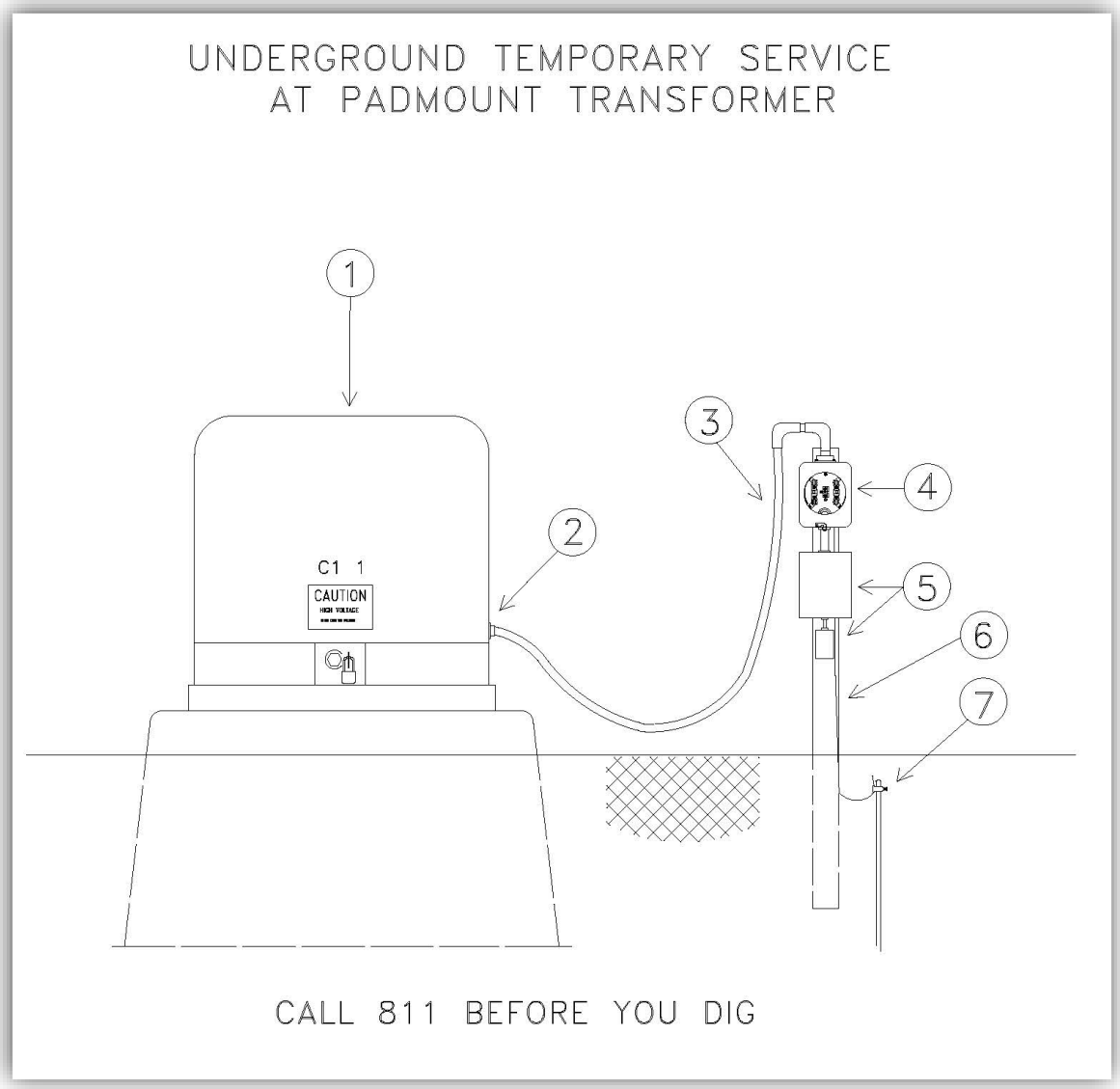
Underground Residential Distribution Service Installation Guide for Temporary Services

1. Set the temporary within 5 feet of the JCREMC pad mount transformer or splice box. Must be set at transformer when available. “CALL 811 BEFORE YOU DIG”.
2. Install entrance lead in flex conduit. Flex conduit is to be long enough to reach to the knockout in the transformer on the right side. Entrance lead must be long enough to connect leads in the transformer (approximately to the center of the transformer).
3. Install ground wire, ground rod, and one-bolt ground rod clamp.
4. After the installation has been completed, call JCREMC business office to request temporary service connect.
5. Multiple temporaries must be long enough to reach under box pad and connect to lead in transformer.
6. Temporary must meet all codes. Incomplete temporaries will not be connected.
7. Multiple trips may incur a service charge.
8. Do not install in front (lock side) of transformer.

Underground Temporary Service at Pad Mount Transformer

Items as shown on following diagram:

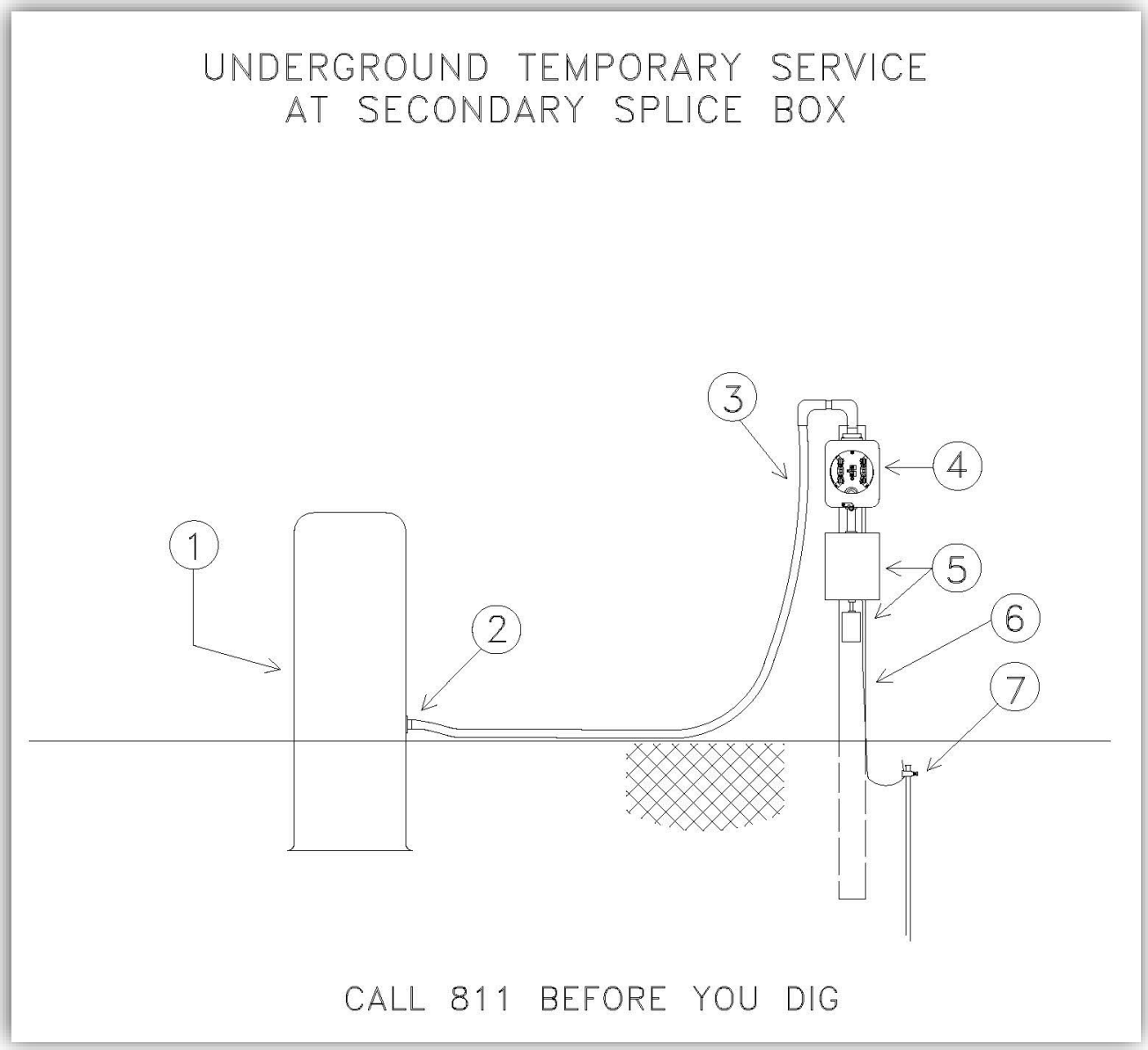
1. Existing pad mount transformer
2. Threaded flex conduit adapter, reducing washers and locknut
3. Flex conduit. with 36 inches of service conductor stubbed out
4. Meter base
5. Disconnect and service equipment
6. Ground wire
7. Ground rod, copper clad, and one-bolt ground rod clamp



Underground Temporary Service at Secondary Splice Box

Items as shown on following diagram:

1. Existing secondary splice box
2. Threaded flex conduit adapter, reducing washers and locknut
3. Flex conduit with 36 inches of service conductor stubbed out
4. Meter base
5. Disconnect and service equipment
6. Ground wire
7. Ground rod, copper clad, and one-bolt ground rod clamp



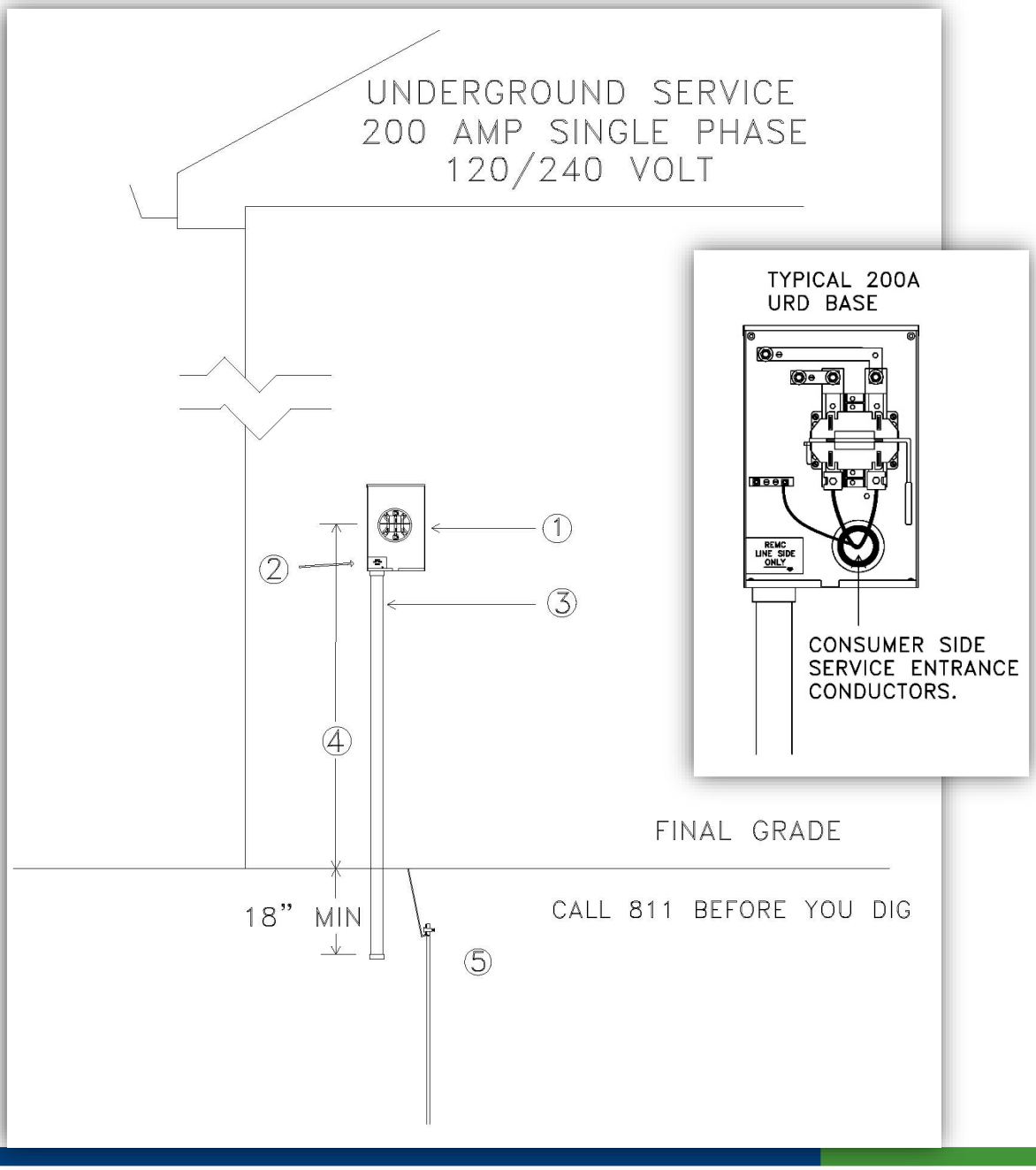
Underground Residential Distribution Service Installation Guide for Permanent Services

1. The JCREMC Engineering Department will determine all service routes. When service requested outside of a preapproved platted subdivision, request an appointment with and engineer, through the business office.
2. It shall be the consumers responsibility to install the meter base within 150 feet of the transformer or splice box designated for the service.
3. It shall be the consumers responsibility to install a 3-inch schedule 80 service riser conduit as required, on the bottom left hand position of the meter base.
4. It shall be the consumers responsibility to install the ground rod with approved ground rod clamp. Reference local requirements for ground rod installation (Water pipe clamps are not acceptable).
5. Ground wire must be connected at panel or disconnect and is not to be connected in or run thru the meter base
6. It shall be the consumers responsibility to maintain a clear path, 15 feet in width, from the source of power to the meter base. This route must be within 4 inches of final grade.
7. It shall be the consumers responsibility to locate and mark consumer owned underground electrical wires, septic lines, field tile, and water lines, or any other underground facility that may be damaged during excavation in the service route.
8. For a service 400 Amps or less where the service will pass under a driveway and will be poured before electric service will be installed, provide and install at 30 inches deep a minimum of 3-inch conduit with pull wire to extend 5 feet on each side of the driveway. Seal ends and place above ground markers at each end of the conduit.
9. For a service 400 Amps or less where the service will pass under a patio or sidewalk and will be poured before electric service will be installed, provide and install at 30 inches deep a minimum of 3-inch conduit with pull wire to extend 5 feet on either side. Seal ends and place ground marker at each end of the conduit.
10. Where the end of the service riser conduit will be under concrete, install at 30 inches deep a 3-inch service riser conduit, with a 3-inch, 90 degree long sweeping elbow and a piece of 3-inch conduit with pull wire extending past the concrete. (This is to be installed under the concrete). Seal end of conduit and place above ground marker at the outside end of conduit.
11. Inside service entrance disconnect(s) shall be located as approved by authority having jurisdiction. Outside main disconnect(s) shall be placed immediately adjacent to the meter base. Outside main disconnect(s) shall be rain tight and on the right side of meter base unless otherwise approved by engineering department.
12. When your meter base installation has been completed, regarding the above items. IT must be inspected and tagged by local authority having jurisdiction. If no such authority exists, a JCREMC Hold Harmless Agreement must be signed. Service will not be connected if not approved by JCREMC even if approved by local authority. Then call the JCREMC business office and request permanent service
13. Reference acceptable locations.

Underground Service, 120/240 Volt, 200 AMP, Single Phase

Items as shown on following diagram:

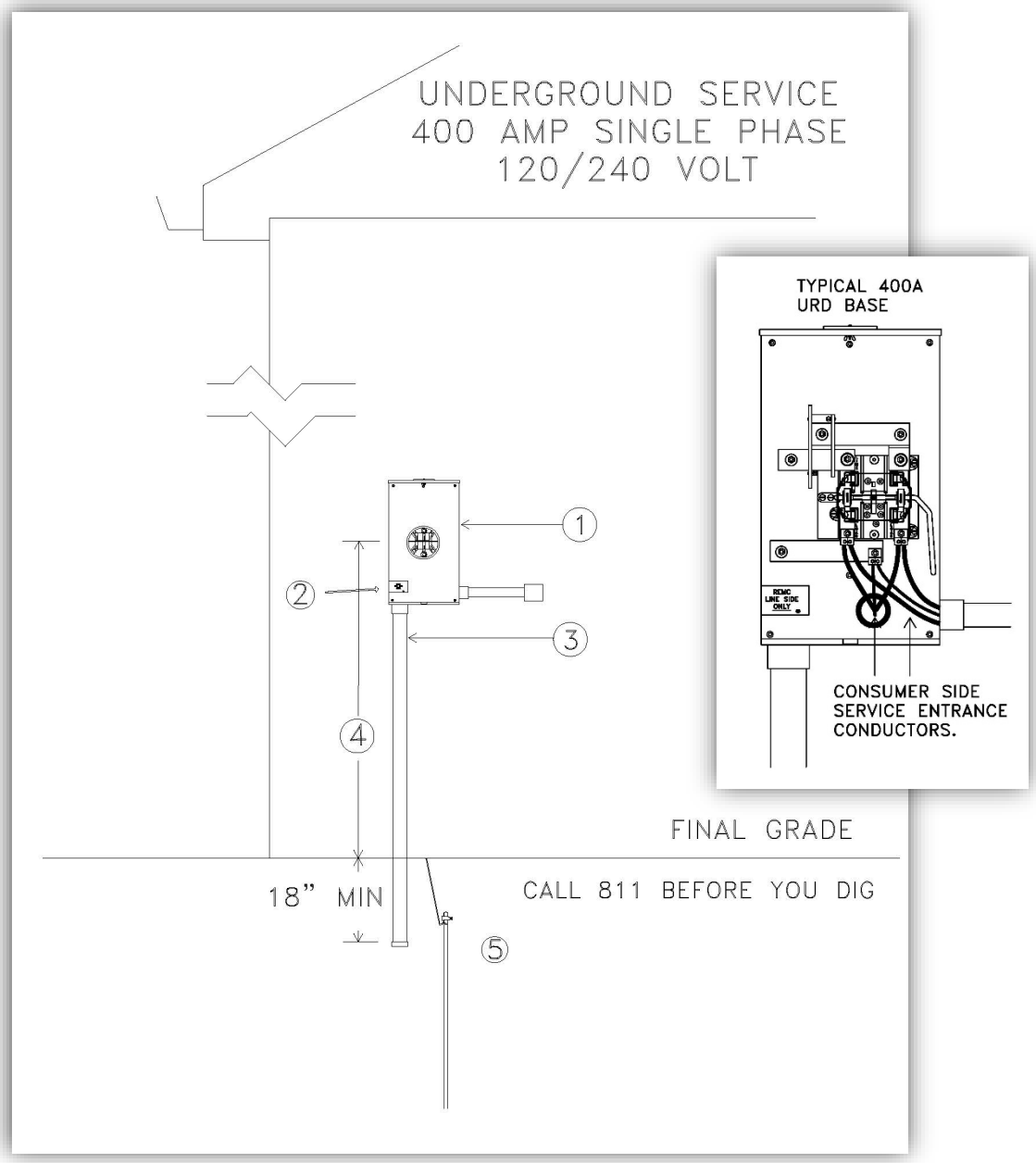
1. Meter base (supplied by JCREMC and installed by consumer). All other equipment is to be provided by consumer
2. Left side of meter base is for JCREMC use only. Consumer will be allowed in left side only with prior JCREMC engineering department approval.
3. 3-inch schedule 80 PVC riser extending a minimum of 18 inches below final grade.
4. Meter base height to be 5 foot to center of meter.
5. Ground rod with approved ground rod clamp. **Reference local requirements for ground rod installation.**



Underground Service 120/240 Volt, 400 AMP, Single Phase

Items as shown on the following diagram:

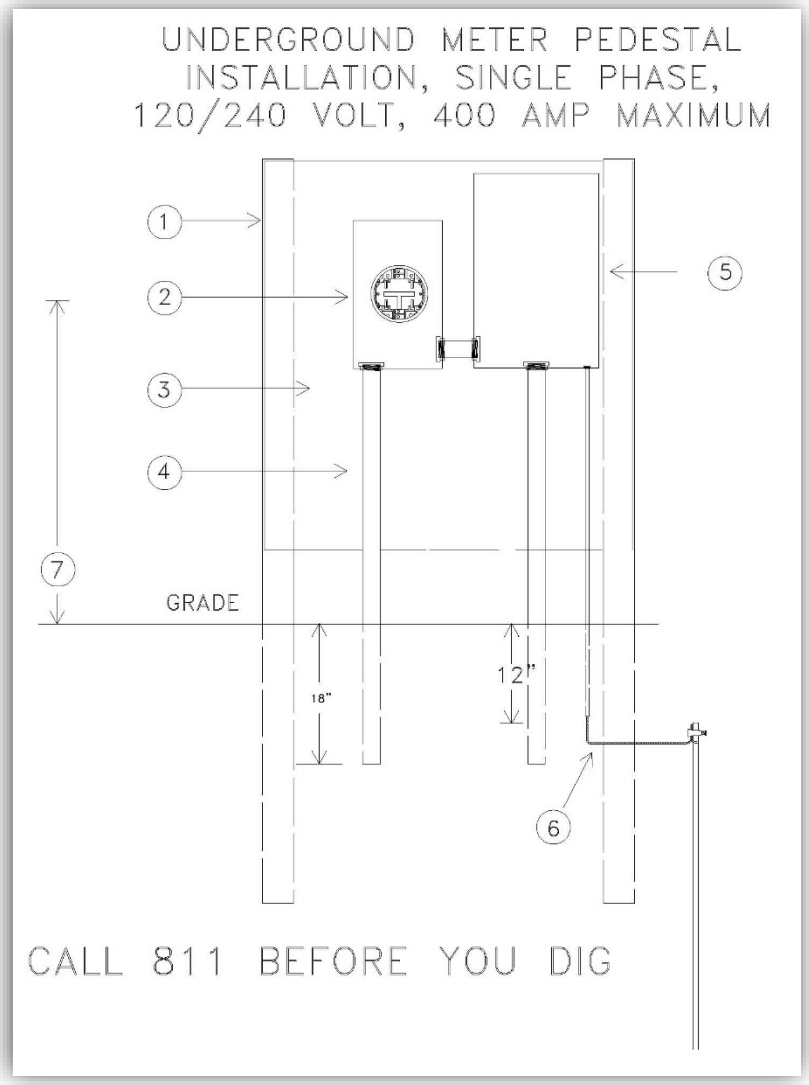
1. Meter base (supplied by JCREMC and installed by consumer). All other equipment is to be provided by consumer
2. Left side of meter base is for JCREMC use only. Consumer will be allowed in left side only with prior JCREMC engineering department approval.
3. 3-inch schedule 80 PVC riser extending a minimum of 18 inches below final grade.
4. Meter base height TO be 5 foot to center of meter.
5. Ground rod with approved ground rod clamp. **Reference local requirements for ground rod installation.**



Underground Meter Pedestal Installation, 120/240 Volt, 400 AMP Maximum, Single Phase

Items as shown:

1. Minimum 4-inch x 4-inch treated wood posts.
2. Meter base (supplied by JCREMC and installed by consumer). All other equipment is to be provided by consumer.
3. Minimum 1-inch thick treated wood backing. No plywood or compressed wood.
4. 3-inch schedule 80 PVC riser for service entrance conductors, extending a minimum 18 inches below grade.
5. Outside disconnect shall be rain tight.
6. Ground rod with approved ground rod clamp. **Reference local requirements for ground rod installation.**
7. Meter base height to be 5 foot to center of meter.



Section 6: Extension of Distribution Lines

Extension of Distribution Lines

When an application is received requesting electrical service, whether overhead construction or underground construction, the rural electric cooperative will estimate the cost of required construction. Also, an estimate will be made as to the 2 ½ years expected revenue from the permanent and continued use by the member requesting electrical service.

If the estimated revenue exceeds the construction cost, the member will receive service by the least cost method without charge for providing such service. However, should the construction cost exceed the 2 ½ years revenue, the member will be required to make adequate provisions for payment of the construction cost less 2 ½ years revenue to the rural electric cooperative. This payment will be accountable for 6 years, during which time if additional applications are made that would utilize the original facilities built for the original applicant, the additional applicants estimated revenue would be calculated for 2 ½ years less construction cost to connect the additional applicants, the difference then would be refunded to the original applicant who made the original payment. Refunds made during the 6 years would never exceed the original payment.

Indiana 811 Call Before You Dig

INDIANA 811 is the statewide notification center for excavation in the State of Indiana.

Indiana 811 takes detailed information from callers who are doing excavation work, process it in the computer, and notifies underground utility operators that may have facilities in the described work area. (Indiana 811 does not locate or mark underground facilities). These underground utility operators send out locators to locate (with appropriate colors) the underground utilities.

By law, Indiana Code IC 8-1-26 the underground utility operators have 2 full working days to mark their underground facilities. Underground utility operators do not have the responsibility to mark any private utilities. Therefore, care should be exercised anytime digging takes place.

The Indiana 811 Center operates 24 Hours a day, 7 days a week, 365 days a year.

Processing locate request from anyone who intends to dig in the State of Indiana.

MAILING ADDRESS
P.O. Box 219
Greenwood, IN

CALL
811 or 1-800-382-5544

ONLINE
www.881NOW.com (for single address locate request)

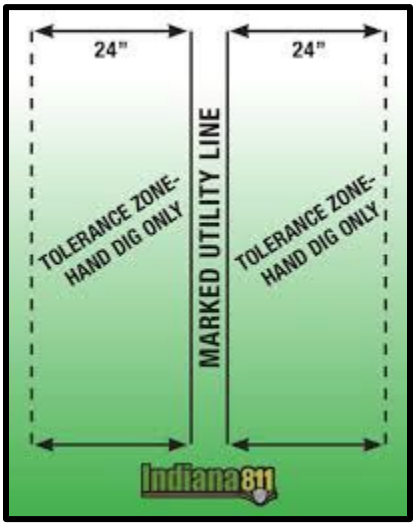
About 811

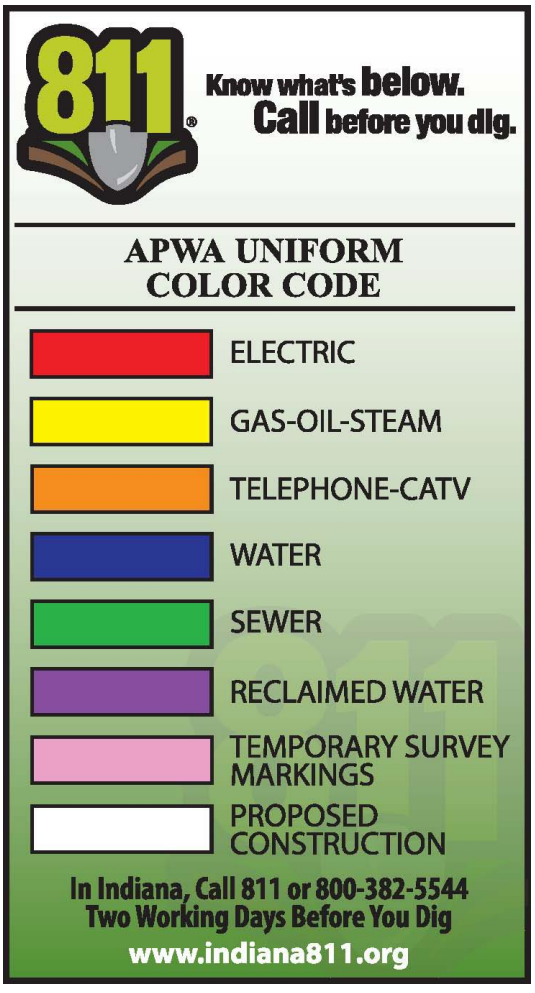
When planning outdoor work that requires digging such as planting a tree, putting in a new children's play set or excavating for construction, visit www.811Now.com or call 811 before you dig. [Company Name] is a member of [One Call Center Name], a free statewide service created to reduce damage to underground facilities and promote public safety by lowering the number of damage incidents. This is important because digging can be expensive and dangerous. Each year, millions of dollars in property damage, personal injuries and even loss of life occur because of careless digging where underground facilities were not located prior to excavating.

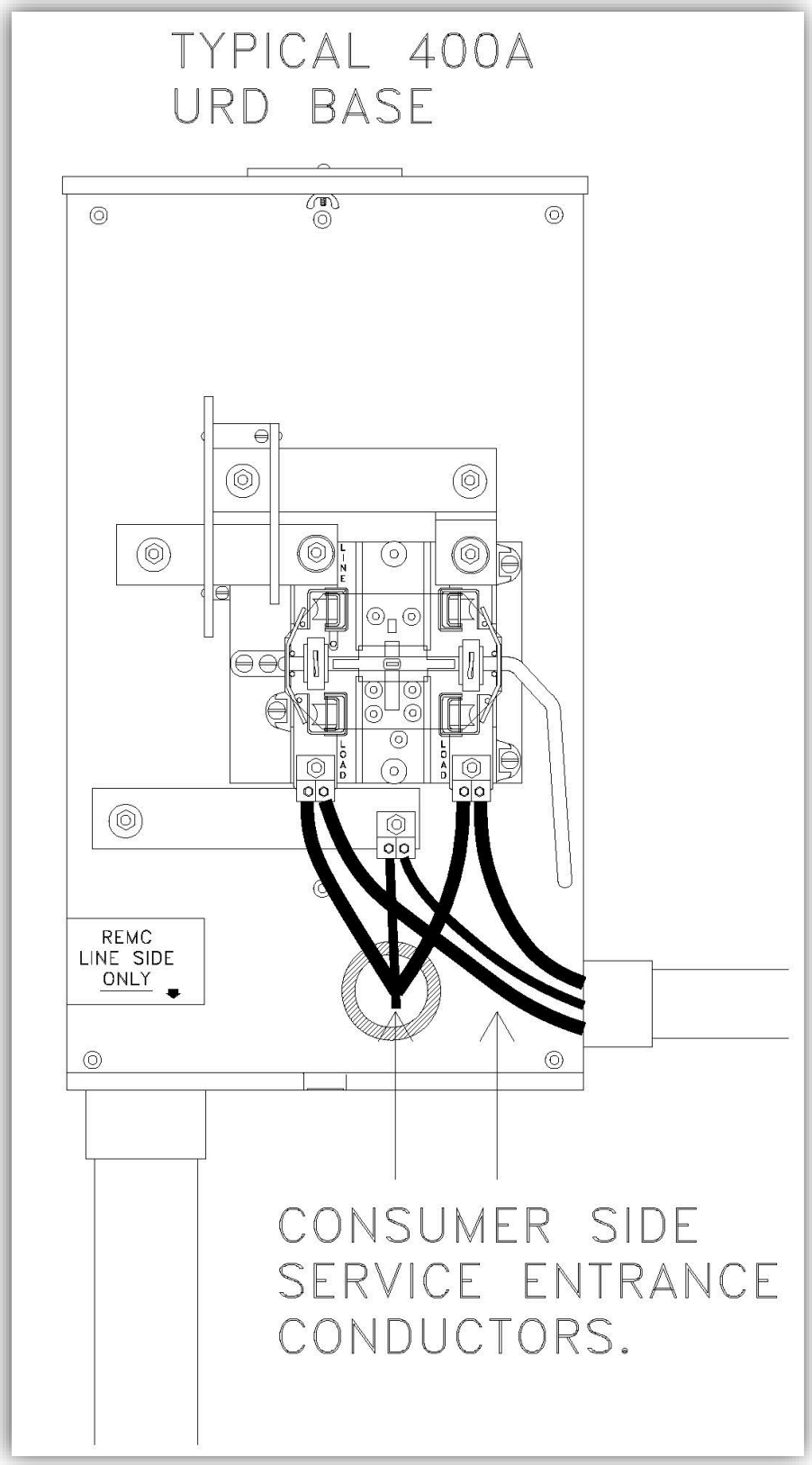
Follow these steps, before you begin your project:

1. Once you have planned your project, visit www.811Now.com or call 811 to submit your request at least two full working days before digging.
2. Provide the following information about the location and plans for your project:
    - County
    - Township
    - Street Address
    - Type of Work
    - Your Name and Title
    - Telephone Number
    - Best Time to Call
    - Start Date and Time
    - Contractor
    - Contractor Address
3. Wait for member facility owners or operators to mark the proposed excavation site.
4. Respect the marks. Once all utilities are checked, the ground will be marked with either a dotted line or a flag with "OK" painted on the ground. Dotted lines indicate underground lines and a flag and "OK" mean that there are no facility lines in that location and the area has been checked. Red, yellow, orange and blue markers should be present before you dig, indicating that all necessary utility lines have been checked.
5. Dig with care

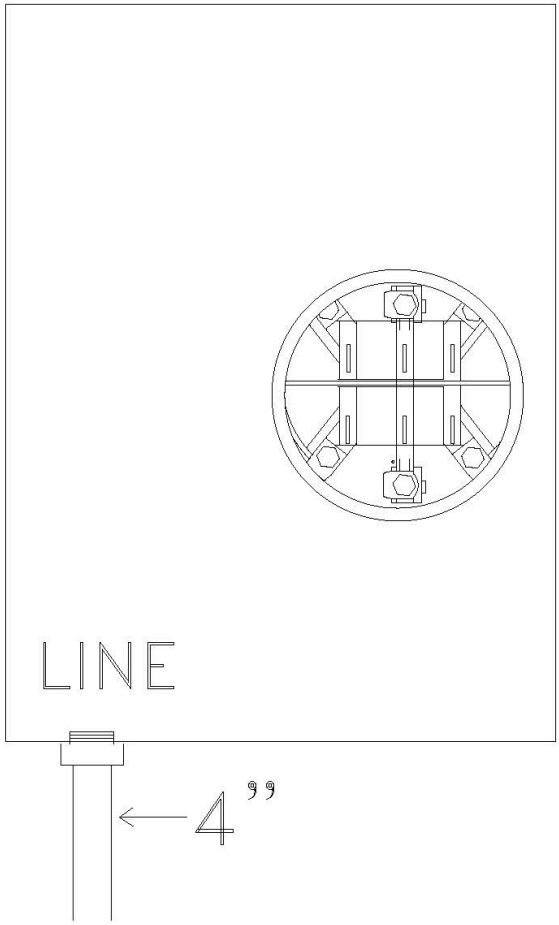
For more information about [One Call Center Name], visit www.811Now.com.






TYPICAL 400A
URD BASE
LINE
LOAD
LOAD
REMC
LINE SIDE
ONLY
CONSUMER SIDE
SERVICE ENTRANCE
CONDUCTORS.

3 PHASE SELF CONTAIN URD SERVICE



200 OR 400
120/208 VOLT
120/240 AND 240/480
VOLT ONLY WITH ENG.
APPROVAL
3-PHASE 4-WIRE