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SERVICE GUIDE

Revised March 1st, 2026

This document is subject to periodic review and may be updated at any time.
Please ensure that you have the latest version available at www.mea.coop.

District Offices (Hrs. Mon-Fri 8:00am – 5:00pm):

Palmer Headquarters

163 E. Industrial Way
761-9300 or 745-3231

Wasilla

1401 S. Seward Meridian Pkwy.
376-7237 or 761-9500

Eagle River

11623 Aurora St.
694-2161

MATANUSKA ELECTRIC ASSOCIATION, INC.
163 E. Industrial Way, Palmer, AK 99645

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Revision History (Within 2 years of current revision date)

DATE	REVISION
March 1 st , 2026	Extensive grammatical corrections and removal of repetitive language throughout entire guide. New fire pump and cellular site service sections (Page 8). Removal of overhead multi-pack figure details. Included photo examples at the end of the guide. Modified all figures with clarifying detail. Rearranged sections and pages for better flow.

SECTION 1 – GENERAL INFORMATION

1A: Introduction

This Service Guide is the member's handbook and reference tool for Matanuska Electric Association's (MEA) requirements surrounding new, relocated, or upgraded electric service. This document contains information for single-phase and three-phase installations. The Service Guide is based on MEA's Tariff filed with the Regulatory Commission of Alaska (RCA).

NOTE: Three-phase infrastructure and services may not be available at some locations.

MEA considers any entity which has been assigned an Alaska commercial business license to be a commercial installation. Any single or detached multi-family dwellings of four (4) or more, also known as "4-plexes" are also considered commercial installations. Additionally, locations which have obtained an Alaska license as a Marijuana Cultivation Facility will be considered commercial installations.

This booklet should be used only as a guide and is not intended to ensure the adequacy and safety of the members' installation. It is the member's responsibility to ensure their installation complies with the most recent edition of the National Electric Code (NEC) and any other federal, state, or local codes that may apply. Additionally, there may be scenarios where this guide will not directly apply. In these instances, the MEA Engineering Department will determine appropriate requirements.

Portions of this guide are based on various codes that are subject to change. The most recent version is available on MEA's website at www.mea.coop or at an MEA district office. An online Cost Estimator is also available on MEA's website to provide a non-binding budgetary estimate for new electric service costs. The online Cost Estimator tool is for residential installations only. For commercial estimates, a work order must be created.

NOTE: The online Cost Estimator tool will provide a preliminary estimate only and is subject to change based on field inspection by a qualified Technician.

Time of Use

MEA offers a time of use (TOU) rate for electric vehicle (EV) owners, which allows for a discounted electric rate during specific EV charging windows. Enrollment requirements, and additional details can be found on MEA's Website: [Time Of Use](#).

1B: Service Installation, Start to Finish

The procedure below is for a standard new service process. Additional steps may be required for Commercial, Owner-Build, or Subdivision work orders. MEA offers an abbreviated process for new residential construction known as a "Simple". For more information, details can be found on MEA's website: ["Simple" Process](#)

1. Application

Members apply for service online at www.mea.coop or in person at any of MEA's office locations (Palmer, Wasilla, Eagle River). Be prepared to provide relevant supporting documentation such as site plans, electrical load requirements, preliminary plats, etc. Application for service should be made as early as possible to allow adequate time for design and construction of the work order. Fees may apply at the time of application.

2. Engineering

An Engineering Technician will initiate contact with the member, to discuss the job details. Once a design is prepared, the member will be provided with a preliminary cost estimate.

3. Notice to Proceed

Once the member agrees to the preliminary cost and would like to proceed, they must notify the assigned Engineering Technician to move the project forward.

4. Right of Way

If needed, the Engineering Tech will apply for necessary easements and/or Utility Permits. Timeframe for permit acquisition will be determined by the applicable government agency.

5. Meter Base Inspection

Once the member installs the metering equipment, an Engineering Tech will inspect the metering equipment for compliance.

6. Work Order Approval

The Tech will submit the work order for final approval internally.

7. Letter of Agreement

Once approved, the Tech will send the member the final letter of agreement for signature and payment.

8. Clearing

If tree clearing is required, the Tech will submit a clearing request to MEA's Right of Way (ROW) department. Once approved by ROW, the request will be sent to the Vegetation Management department, which will then be scheduled for clearing.

9. Construction

Once clearing is completed, the work order will be assigned to operations for construction as designed.

1C: Inspections

After the service entrance is installed, MEA, or their designated assignee, will perform an inspection. The first inspection is free of charge, but all additional inspections may be subject to a \$96.00 fee. MEA does not inspect internal wiring past the electric meter for compliance with electrical codes or governmental agencies.

Commercial installations require either a State of Alaska inspection performed by a representative of the Mechanical Inspection Division (907) 707-1733, or a certified self-inspection.

The State reserves the right to inspect any commercial installation and is the ultimate authority for a commercial site inspection. If the service is located within the Palmer City limits, the City Inspector may inspect the service rather than the State of Alaska. For Municipality of Anchorage projects in Eagle River and Chugiak, the Municipal Inspector will be the designated inspection authority.

1D: Temporary Construction Services

Where applicable, temporary services to construction sites are available until permanent service can be established. Temporary electric service may also be provided to facilities that are of a temporary nature including, but not limited to, fairs, shows, mobile units, construction camps, etc. Since these facilities do not require construction of permanent service, the member is required to pay for the installation and removal costs of the electric infrastructure. An estimate will be prepared upon request, and the member will pay this amount prior to construction.

Construction sites may be served up to nine (9) months using the appropriate overhead or underground temporary meter base assembly per Section 4.03 of the MEA Tariff. The assembly must be located outside the utility easement. Existing MEA facilities in the area will determine whether an overhead or underground meter base will need to be used. All 15 amp and 20 amp circuits must have GFCI protection and all cover plates and panels must be present. The assembly will remain the property of the member throughout the life of the installation.

NOTE: For three-phase temps, please contact the assigned Engineering Technician.

Overhead Service

Where MEA's existing facilities are overhead, an overhead temporary meter base must be used. A usable overhead transformer must be available, or one will need to be installed. The meter base must be located within 20 feet of the MEA pole, or additional costs may be incurred. Additionally, the meter base must be installed on the member's property and outside of the utility easement. See Figure 1 on page 18 for details regarding an overhead temporary meter base. For temporary services installed at a distance greater than 20 feet from the existing MEA facilities, contact the Engineering Technician to determine placement of the temporary meter base.

Underground Service

Where MEA's existing facilities are underground, an underground temporary meter base must be used. The meter base must be located within 20 feet of an existing MEA transformer or service pedestal, or additional costs may be incurred. Additionally, the meter base must be installed on the member's property and outside of the utility easement. See Figure 2 on page 19 for details regarding an underground temporary meter base. For temporary services installed at a distance greater than 20 feet from the existing MEA facilities, contact the Engineering Technician to determine placement of the temporary meter base.

Minimum Temporary Meter Base Requirements

The temporary meter base must be no less than 100 amp rated, ring sealed, with a single main breaker and GFCI protected outlets. The meter base shall have a name plate showing the rating and the diagrams of the meter base. Additional requirements not mentioned here should follow the NEC minimum requirements for meter bases.

1E: Subdivisions and Looping

A Developer must enter a Subdivision Agreement if they wish to interconnect their electrical infrastructure to MEA's system. The Subdivision Agreement shall apply regardless of whether a Developer is interconnecting a single lot or multiple lots within a subdivision. MEA's Subdivision Agreement will typically apply to developments covered by Section 7.05 of MEA's Tariff.

MEA may, at its sole discretion, determine that the Developer's electrical infrastructure must be tied to MEA's system at multiple locations. When this is done, it is referred to as "looping". Looping is done to increase reliability to MEA's members by providing an alternate source to feed the load(s). The cost for installing facilities necessary to loop a subdivision shall be paid for by MEA. However, the Developer shall provide the necessary right-of-way for MEA to install said looping facilities.

Pursuant to Section 7 MEA's Tariff, a Developer (including Subdividers) will be required to pay for all costs associated with the electrical facilities necessary to serve the lots in a subdivision. MEA must review and approve all the Developer's electrical designs of which MEA will assume ownership pursuant to the Subdivision Agreement. Developers will also be required to supply, at no cost to MEA, all easements necessary for the subdivision's electrical facilities. Based on limited or phased development, the construction of the "loop" may be deferred to a later date at the discretion of MEA.

1F: Utility Easements and Entity Permits

As a part of members electrical projects, MEA will request necessary easements on the subject property. The easement will allow MEA, its contractors, or agents the rights to install facilities on the property with the ability to extend service to other locations in the future. An easement provides MEA with the rights necessary to install its facilities on the property for electric and telecommunications purposes (through joint-utility agreements). Before MEA can proceed with the construction of the project, it must receive a completed, signed and notarized easement from all legal landowners. Easement forms and notaries are available at the MEA offices listed on the cover sheet of this document.

An easement is an interest in land for a specific purpose. An MEA easement includes the right of access to construct, operate, and maintain MEA facilities on, over, or under the subject property. This includes the right to inspect, repair, alter, improve, and remove facilities within the easement area. MEA easements must be cleared of trees, brush, and other obstructions. MEA easements include the right to cut or remove vegetation, which may include but is not limited to trees, brush, and/or other obstructions. In addition, obstructions or structures within the easement area that interfere with construction or maintenance activities are prohibited. Examples of prohibited structures that can create safety concerns include sheds, greenhouses, buildings and parts of buildings, wells, and/or other permanent structures. The intent of MEA easement rights-of-ways are to allow MEA to conduct the business of providing electric and telecommunications services only. MEA easements are not intended to be used by other entities for access or any another purpose.

1G: Trenching

MEA or its contractor will typically perform all trenching. If a member wishes to perform their own trenching for their service, this may be allowed on a case-by-case basis. Contact the Engineering Technician that is assigned to the project for specific requirements and authorization.

1H: Clearing

Members who wish to provide clearing on their property, either themselves or through a hired clearing contractor, must conform to the construction guidelines set forth by MEA's Vegetation Management department. General clearing requirements are provided below; however, members are to discuss and confirm their specific clearing requirements with the Engineering Technician prior to commencing work. The Engineering Technician will stake the centerline, the clearing limits, and will meet with the members onsite to discuss specific clearing requirements and applicable MEA standards.

If member clearing is unsuitable or inadequate, MEA reserves the right to deny or delay construction until the clearing is made satisfactory. If MEA is required to complete any remaining clearing, the member will be charged for the expense.

Overhead Clearing Requirements

Overhead clearing consists of cutting/removing all vegetation and other obstructions from the entire width of the specified easement in preparation for the installation of overhead electric lines.

The full width of the specified easement shall be cleared. Brush shall be cut as close as practicable to ground level with stump and stubble height not to exceed four (4) inches above ground level as measured on the uphill side. Stump and stubble height shall not exceed two (2) inches in height in a member's yard. All trees, re-growth, limbs, brush, and logs less than five (5) inches in diameter shall be chipped, mulched, or disposed of. All logs five (5) inches or larger in diameter shall be de-limbed and cut into approximate six (6) foot lengths and stacked at the edge of the easement, where applicable.

Debris shall not be buried at or near the job site. Any resulting debris such as brush, limbs, and trees (other than the above referenced logs) must be removed from the easement at the member's expense. The member may mechanically chip or grind the debris into pieces not to exceed one (1) inch wide by twelve (12) inches long. The debris may then be spread uniformly over the cleared easement.

Trees and brush with the main trunk outside of the easement, but with limbs extending into the easement, shall be cut/trimmed at the edge of the easement. No limbs shall extend into the easement once clearing is completed. If 50% or more of any tree trunk extends into the easement, the tree shall be removed, unless other instructions apply.

Underground Clearing Requirements

Underground clearing/grubbing consists of cutting/removing all trees, brush, stumps, and other obstructions from the entire width of the specified easement in preparation for the installation of underground electric lines.

The full width of the specified easement shall be cleared from ground level to eight (8) feet above grade. All trees, re-growth, limbs, brush, and logs less than five (5) inches in diameter shall be chipped, mulched, or disposed of. All logs five (5) inches or larger in diameter shall be de-limbed and cut into approximate six (6) foot lengths and stacked at the edge of the easement, where applicable.

All stumps, roots and other obstructions shall be removed to a minimum depth of twenty-four (24) inches along the full width of the cleared easement via grubbing. The area in which excavation will occur must be free of debris, such as stumps and roots, which may cause cable damage. Debris shall not be buried at or near the job site. Any resulting debris such as brush, limbs, and trees (other than the above referenced logs) must be removed from the easement at the member's expense. As an alternative to hauling, the member may mechanically chip or grind the debris into pieces which are one (1) inch wide by twelve (12) inches long. The debris may then be spread uniformly over the cleared easement. Underground clearing and grubbing jobs can be of varying widths, contact the assigned Engineering Technician for specific requirements.

SECTION 2 – SERVICE TYPES AND VOLTAGES

2A: Available Service Voltages

Available Secondary Voltages

The following single-phase secondary voltages are generally available for residential and commercial members, depending on the service location and requirements.

120/240 volts, single-phase, 3-wire
240/480 volts, single-phase, 3-wire (upon MEA Engineering approval)

In addition to the above, the following three-phase secondary voltages are generally available for commercial members, depending on the service location and requirements.

120/208 volts, three-phase, 4-wire
120/240 volts, three-phase, 4-wire
240/480 volts, three-phase, 4-wire
277/480 volts, three-phase, 4-wire

Available Primary Voltages

Large commercial and industrial members may require service at the primary voltage level. Primary service is recommended for members who require voltages in excess of the available secondary voltages above. Service at a primary voltage is generally available for both single-phase and three-phase loads, however, the available voltages and number of phases are dependent on site specific MEA facilities.

Primary metering equipment will be installed at the point where MEA facilities end and member facilities begin. Metering is installed by MEA on an MEA-owned pole or pad-mounted cabinet at the member's expense. All metering equipment is sealed and is non-accessible to the member. Operations and maintenance of member-owned facilities are the members responsibility. MEA requires installation, at a point just beyond the metering location, a means of load break disconnect to allow the members' facilities to be de-energized by non-MEA personnel. Primary fuses on the member side must be coordinated with the MEA system to avoid system outages should a fault occur on the member's system.

Members requiring service at the voltages listed below should work with their assigned Engineering Technician to discuss the requirements and specifications for proper design and construction of the service.

7,200 or 14,400 L-G volts, single-phase, available based on location
7,200/12,470 or 14,400/24,900 volts, three-phase, available based on location

Net Metering, Co-generation and Independent Power Producers

Members requiring interconnection to the MEA system as a net metering, co-generation, or independent power producer facility will need to contact MEA to discuss proper construction of their service entrance equipment, a review of their service lines and capacities, and the execution of special agreements for such interconnections. Additional information and application details for net metering can be found at [Net Metering – Matanuska Electric Association, Inc.](#)

2B: Owner-Designs

In lieu of MEA engineering, members may elect to hire a third-party engineer to perform the design work for their primary line extension or subdivision design. Secondary or service line extensions shall always be designed by MEA Engineering Staff. The hiring of a third-party engineer will not eliminate MEA's engineering costs or the need for MEA engineering approval. Contact the Supervisor of Distribution Engineering for additional information.

2C: Owner-Builds

Members may elect to hire a qualified contractor from MEA's qualified contractors list to perform construction work. MEA's qualified contractors list is found here: [Qualified Contractors List](#). This type of construction is termed "owner-build". Owner-builds do not eliminate MEA's costs or the need for MEA approval. Additional steps are required for this process, contact the assigned Engineering Technician for further details.

2D: Service to Cellular Sites

Cellular sites are generally occupied by multiple providers with limited ground space for electric facility separation. If a new or modified service is requested, a multi-gang or modular style cabinet must be installed. Please contact the assigned Engineering Technician for additional information.

2E: Service to Fire Pumps

MEA does not require a disconnect or breaker for services or circuits dedicated to powering a fire pump. All installations must meet applicable codes and requirements. Service entrance equipment must be state inspected with a placard labeled "FIRE PUMP SERVICE ONLY". If a disconnect is installed, the location of the disconnect must be stated on the placard. Please contact the assigned Engineering Technician for additional information.

2F: Services to Motors

Single-phase motors are generally limited to 10 HP and smaller. Motors larger than 10 HP require pre-approval from Engineering.

In general, across-the-line starting may be used for three-phase motors up to 25 HP. Reduced voltage starting is required for all motors larger than 25 HP, subject to approval from Engineering.

Members are responsible for providing overload, short-circuit, and under voltage protection for motors installed. Where three-phase motors are used, protection against “single-phasing” is the member’s responsibility.

Members may install a “phase converter” to operate a three-phase motor from a single-phase service in locations where three-phase service is not available. Motor size for such installations is limited to 10 HP. Installation and maintenance of this equipment is the member’s responsibility.

SECTION 3 – SERVICE ENTRANCE EQUIPMENT

3A: General

Individual services of 200 amps or less will be metered using a self-contained meter. Individual services greater than 200 amps will be metered using either a 400 amp direct connect (self-contained) meter or current transformer (CT) meter. Note, 400 amp self-contained meter bases must be approved by MEA before purchase and installation. Self-contained non-CT meters for 480-volt services require a manual lever bypass switch. Individual single phase services greater than 400 amps will require CT metering.

MEA is responsible for:

- Installing the service line from pole, transformer, or pedestal to a member-installed meter base.
- Installing the meter.
- Energizing the service.

Member is responsible for:

- Applying for service.
- Selecting overhead or underground service.
- Installing an approved meter base in an approved location.
- Maintaining the service entrance equipment.
- Maintaining MEA access to the meter base.

All service equipment and wiring must conform to the latest edition of the National Electric Code, state or local codes, and MEA requirements. All service entrance equipment and components must be UL listed, NEMA 3R weatherproof minimum, and manufactured for the type of service (overhead or underground) used.

The owner must furnish and install the service entrance equipment in accordance with the installation drawings on Pages 18-34. MEA has developed the document “MEA-Compliant Single-phase Meter Bases” for members to select a pre-approved meter base found here: [MEA Compliant Meter Base List](#).

If there are questions on whether an unlisted meter base will pass MEA inspection, please contact the assigned Engineering Technician for pre-approval in order to prevent a failed inspection for a non-compliant meter base.

Meter bases must be combination type with meter socket and single main breaker (split main or provisional main breakers are not permitted) to allow service de-energization. The service will not be energized unless a main breaker is installed.

All service entrance equipment must be securely anchored to the structure with exterior rated bolts and/or screws and washers. Nails are not an adequate securement device and will not be permitted.

Multi-gang meter sockets must be permanently identified with the location served (apartment number, suite, etc.). Acceptable identification labeling includes adhesive decals, embossed metal or engraved plastic plates attached by screws, rivets, or epoxy adhesive.

3B: Service Entrance Equipment Location

Service entrance equipment must be mounted on the exterior of the building, or on a remote meter pedestal or meter pole such that the center of the meter socket is between 60 and 72 inches above finished grade. Service entrance equipment shall be located on the lot that the meter base will be serving unless approved in writing by MEA.

Service entrance equipment mounted on the building must be located at or near the side of the building closest to the existing MEA facility that provides service. If there are conflicts or questions concerning the exact location or the route of the service line, contact the assigned Engineering Technician before installing the equipment.

Service entrance equipment must be accessible to MEA personnel and shall not be located under decks, stairs, porches, carports, breeze-ways, or under the outfall of rain spouts or drains, and must be protected from snow unloading from rooftops. Service entrance equipment must have a minimum separation of 36 inches to all doors and windows. Service entrance equipment must be located a minimum of 30 inches from the gas meter. For service to mobile homes, the equipment must be mounted on a remote meter pedestal or meter pole. Service entrance equipment must be mounted on a structure with a permanent foundation as specified in the tariff.

3C: Grounding and Bonding (SEE PHOTOS 1-8 ON PAGES 37-40)

Each electric service shall comply with all applicable grounding requirements of the latest revision of the NEC and with any local amendments to the NEC.

The member is responsible for furnishing, installing, and maintaining all components at the point of connection between MEA and the premises wiring necessary to comply with the grounding requirements stated below.

Two (2) ground rods are required, spaced a minimum of six (6) feet apart. Ground rods must be 5/8" x 8' copper clad steel or galvanized steel driven vertically into undisturbed earth. Clamps must be a manufactured type approved for the purpose. Ground rod connections must remain visible until inspections are complete. The top of the ground rods must be a minimum of six (6) inches below existing grade, or final grade if cover material is to be deposited. Ground rods for temporary construction must be located outside of the easement. The member is responsible for requesting locates to avoid disturbing any existing facilities.

The grounding wire must be bare copper, unspliced in its entire length, stapled to the structure, running continuously from the neutral bus inside the main breaker panel to the ground rods. The ground wire and connections must be visible for MEA inspection. The grounding system shall tie together the service entrance and ground rods. Ground rod grounding conductor size shall be a minimum of #6 AWG solid copper unless otherwise required by the NEC. Only one (1) conductor may be installed in each lug position.

SECTION 4 – INSTALLATION GUIDES

4A: General

Meter bases, main breakers, and components must be UL listed, Nema 3R weatherproof, and manufactured for the application used. At a minimum, meter base enclosures must be rated for NEMA 3R weatherproofing. No meter bases or breakers may be installed which allow members access to MEA's service conductors.

Service entrance equipment must facilitate readily accessible service de-energization in the event of an emergency; therefore, no meter will be installed unless the member-installed meter base is equipped with a main breaker.

Shunt trip breakers are not allowed. Main disconnect switches associated with service entrance equipment must provide a visual open, lock out capability, and be accessible on the outside of the building.

Any deviation from these specifications must be approved by the Engineering Technician assigned to the job prior to installation. If there is any doubt about the validity of the equipment or installation, members should confer with the Engineering Technician.

4B: Underground Service

The meter base location must be accessible by MEA and is subject to Engineering Department approval. Meter bases must be located on:

- Exterior of the house or on a remote meter pedestal.
- On or near the same side of the building as the pole, transformer, or pedestal.

Meter bases must not be located:

- Under decks, stairs, or porches.
- Inside carports or breezeways or under the outfall of rain spouts or drains.

Service routing is to be in a reasonably straight line from the pole, transformer, or pedestal to the meter base and must be clear of all brush, stumps, and debris to a width of 20 feet. Service lines must be a minimum of ten feet from wells and septic systems. The ground must be brought to final grade prior to trenching.

The slope of the route shall be no more than 3:1 for inline installations and no more than 4:1 where the trench traverses the slope. If these requirements cannot be met, please contact the Engineering Technician.

Based on the application, the riser (sweeps) must be liquid-tight flexible metal conduit or rigid steel (RSC) that are securely fastened to the structure. Non-metallic liquid-tight conduit is not allowed. For liquid-tight installations, the conduit shall be long enough when laid on the ground that a section of five (5) feet can be buried. For RSC installations, the lower end of the (90-degree rigid steel sweep) must be left exposed below grade; MEA will bury this section as part of the service line installation. For both liquid-tight and RSC installations, standard locknuts may be used to attach the riser to the meter base if there are no knockout rings remaining. If knockout rings exist, a grounding bushing must be used and must be connected to the neutral bus with a jumper, sized per NEC. Non-metallic fittings or hubs designed for overhead service are not allowed for underground installations

4C: Remote Meter Pedestal

Members may install the meter on a pedestal remote from the building. Remote meter pedestals (RMPs) must be in an accessible location approved by the Engineering Department. Neither the RMP nor member-owned cable may be located within the utility easement. Installation and maintenance of supply conductors in accordance with the NEC from the RMP to the load is the member's responsibility. RMPs are not allowed for overhead service.

4D: Temporary to Permanent Meter Pedestal

Members may install the meter base on a temporary pedestal within one foot of the permanent meter location on the building, as shown in the "Temporary Installation" in Figure 10 on Page 27. Once the building is ready, the member shall transfer the meter base and meter from the pedestal to the building as shown in "Permanent Installation" in Figure 10 on Page 27.

4E: Overhead Service

Meter bases must be located on the exterior building wall closest to the MEA pole. Services may not be routed over roofs. RMPs are not allowed for overhead service. A member-provided meter pole may be used for overhead service.

The riser conduit is to be two (2) inches rigid steel, except for gable-end installations in which MEA will be attaching to the wall, where two (2) inches EMT or IMC are permitted. Install a minimum of two (2) spacer clamps for single level structures. For multi-level structures, contact the Engineering Technician for requirements. Galvanized water pipes are not acceptable.

The minimum size for a permanent overhead service is 125 amps. 100 amp meter bases are allowed for temporary construction services only. Meter bases rated more than 200 amps with provision for a sub-feed circuit are not allowed. Service entrance conductor will be supplied by the member and is to be sized according to NEC requirements.

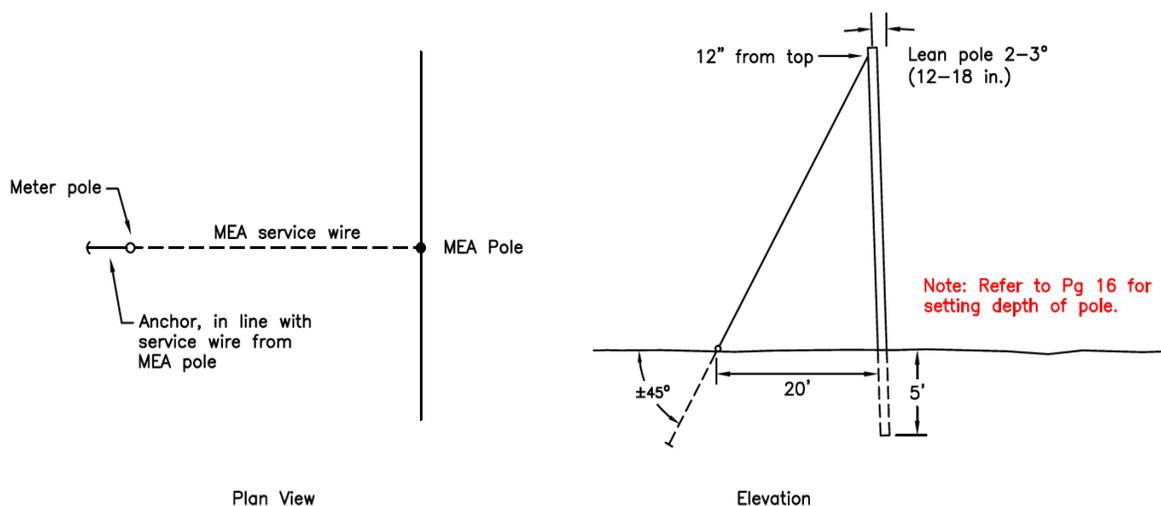
The neutral wire must be identified at the weather head using one of the following methods:

- White or gray insulation
- Black insulation with white, gray or colored stripes
- Black insulation marked with white tape

If MEA will be attaching to the gable end of the structure, installation of a 5/8" galvanized eyebolt (minimum eye opening of 1½") within two feet of the weather head is required. This will be the point of wire attachment, where the eyebolt must be securely fastened to a stud or framing member. Do not attach to the siding only. Eyebolts are available free of charge at the MEA Palmer, Wasilla, and Eagle River district offices.

4F: Meter Pole Installation Instructions

1. Install the guy attachment to the pole using the 5/8" bolt, washer, and nut. Use the hole located 12 inches from the top of the pole. Tighten nut securely.
2. Attach a preformed guy grip to one (1) end of the guy wire. Wrap both ends of the preform completely around the guy wire. Place the preform loop over the ears of the guy attachment so that it is resting on the shoulder of the attachment.
3. Install the screw anchor into the ground at a 45° angle and in line with the direction of the service line. The anchor should be positioned approximately 20 feet from the pole. Two methods may be used to install the anchor.
 - The anchor may be screwed into the ground by placing a bar through the anchor eye and twisting the anchor until the eye is approximately 6 inches above ground level.
 - A hole can be excavated and the anchor end buried. Install the anchor at a 45° angle, confirm the backfill is well tamped, and the anchor eye is approximately 6 inches above the ground.
4. Install the meter pole to a depth according to the table on Page 16. Lean the pole toward the anchor approximately 2-3°, or about 12 to 18 inches out of plumb.
5. Attach the guy wire to the anchor using the second preformed grip. First, insert the grip through the anchor eye, then wrap the grip ends around the guy wire while tensioning the guy wire by hand. Cut off the excess guy wire and install the guy marker.



4G: Overhead Service to Meter Pole

Meter poles are owned by the member and must meet the following requirements:

- Commercially pressure treated pole.
- 25 feet long, minimum.
- Class seven (7) pole minimum (15 inches minimum pole top circumference).
- Pole set at least five (5) feet deep. A taller pole may be required to cross driveways and roads or to provide additional clearance for trucks or other equipment. See table below for setting depths.

POLE HEIGHT	MINIMUM SETTING DEPTH
25'	5'
30'	5'
35'	5.5'
40'	6'

Poles, guy/anchor kits, and unistrut standoff brackets are available for purchase from MEA. If the pole is purchased from MEA, the member must have a vehicle or trailer on which the pole can be legally transported (less than 4 feet of overhang). If no means of transporting it is available to the member, MEA can arrange delivery for a fee.

Meter poles must be set a minimum of 20 feet from primary power lines and must not be in the utility easement.

If the meter pole is located more than 50 feet from MEA's last pole, the meter pole must be guyed. The guy wire must be a minimum of 1/4" stranded galvanized steel wire with approved clamps or deadends.

The meter pole must be accessible in a location approved by the Engineering Department. A member owned pole cannot be used at the crossing termination of a road.

4H: Standby Generator Connections

When incorporating a standby generator into member electrical systems, proper installation is essential for safe operation. If not properly isolated, a standby generator can backfeed onto MEA's system, which can be very dangerous to crews working to restore power. For this reason, a double-pole double-throw (DPDT) transfer switch must be installed. This switch must provide a visual open, have lock out capability, and be readily accessible on the outside of the structure. No devices will be allowed between the meter and the meter socket. To ensure proper application and compliance with NEC requirements, MEA recommends the switch be installed by a licensed electrician. There are two (2) types of installations, which depend on the size of home/generator.

Alternative 1 requires that the transfer switch be the same size as the main disconnect. This transfer switch arrangement is capable of carrying all loads under normal conditions. With this type of installation, the limiting factor for power capacity is the size of generator. Under emergency conditions, unless the generator is sized large enough for full-load conditions, circuits may need to be isolated and emergency circuits prioritized. **SEE FIGURE 18 ON PAGE 35.**

Alternative 2 allows selected critical loads to be separated from the main distribution panel and wired into a sub panel. The generator will supply power to these critical loads only. The entire electrical panel at full-load conditions will not be incorporated into the standby generator circuit. **SEE FIGURE 19 ON PAGE 36.**

Figure 1: Overhead Temporary Construction Service

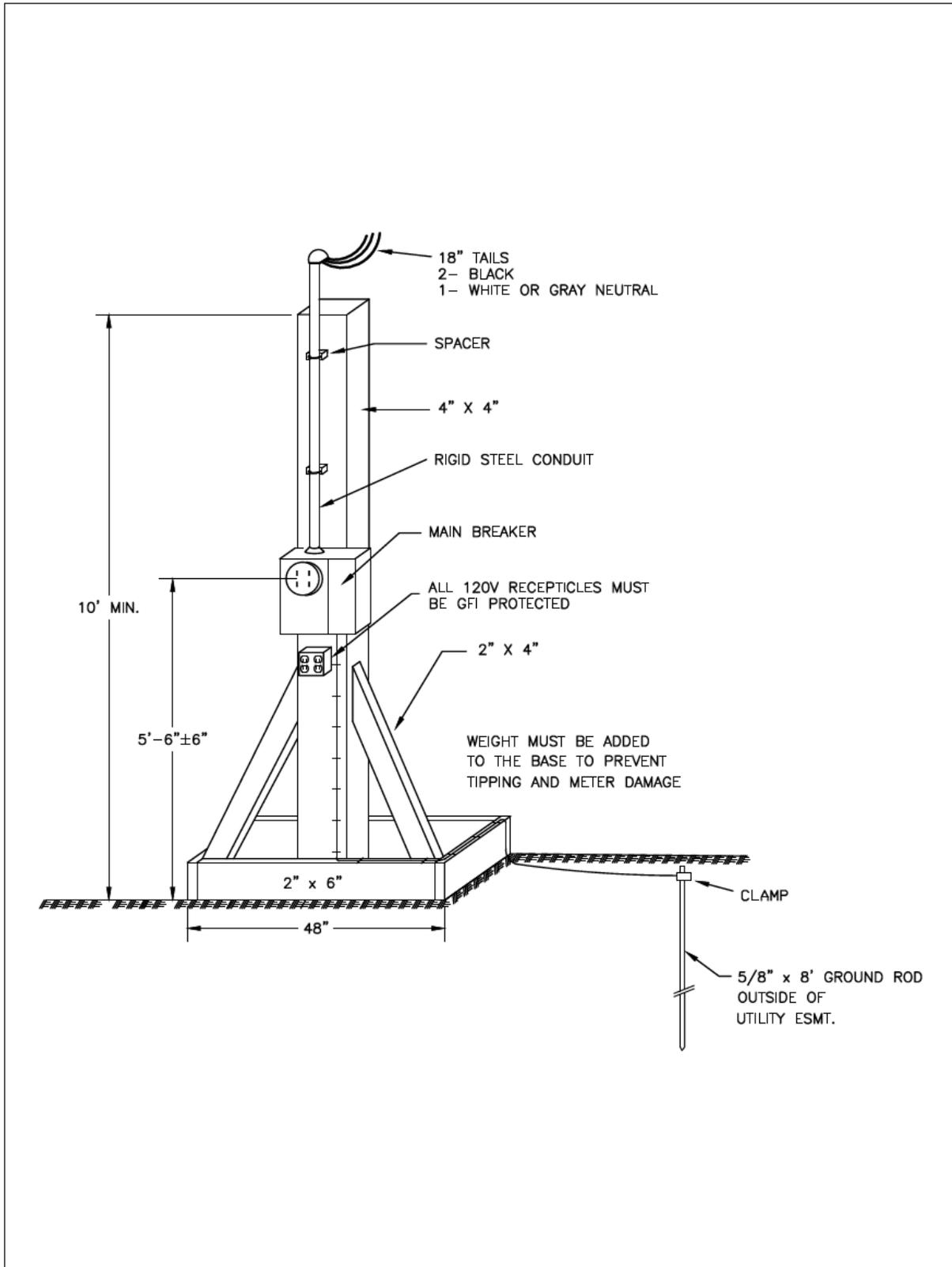


Figure 2: Underground Temporary Construction Service

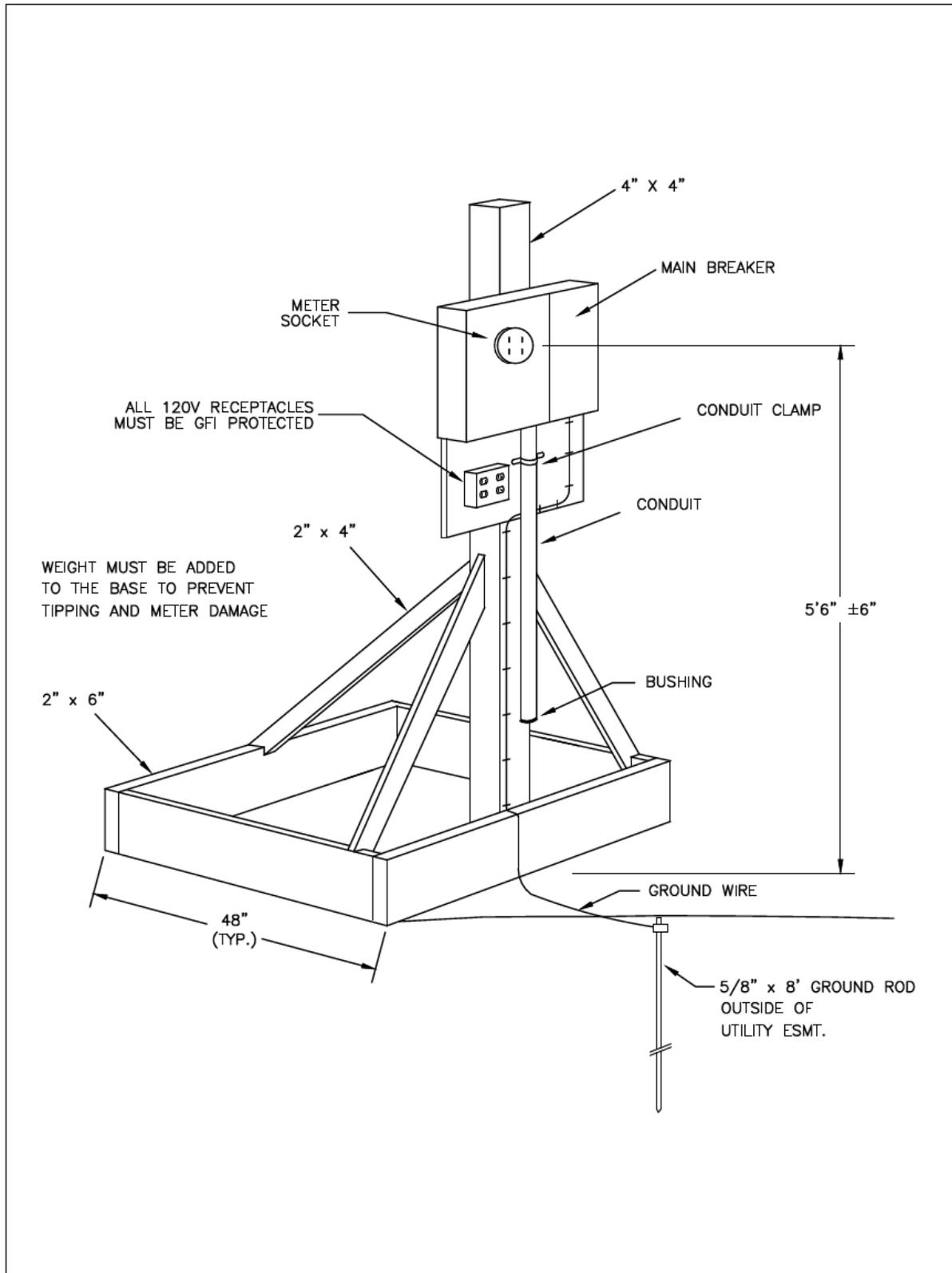


Figure 3: Underground Service on Building
Residential or Commercial

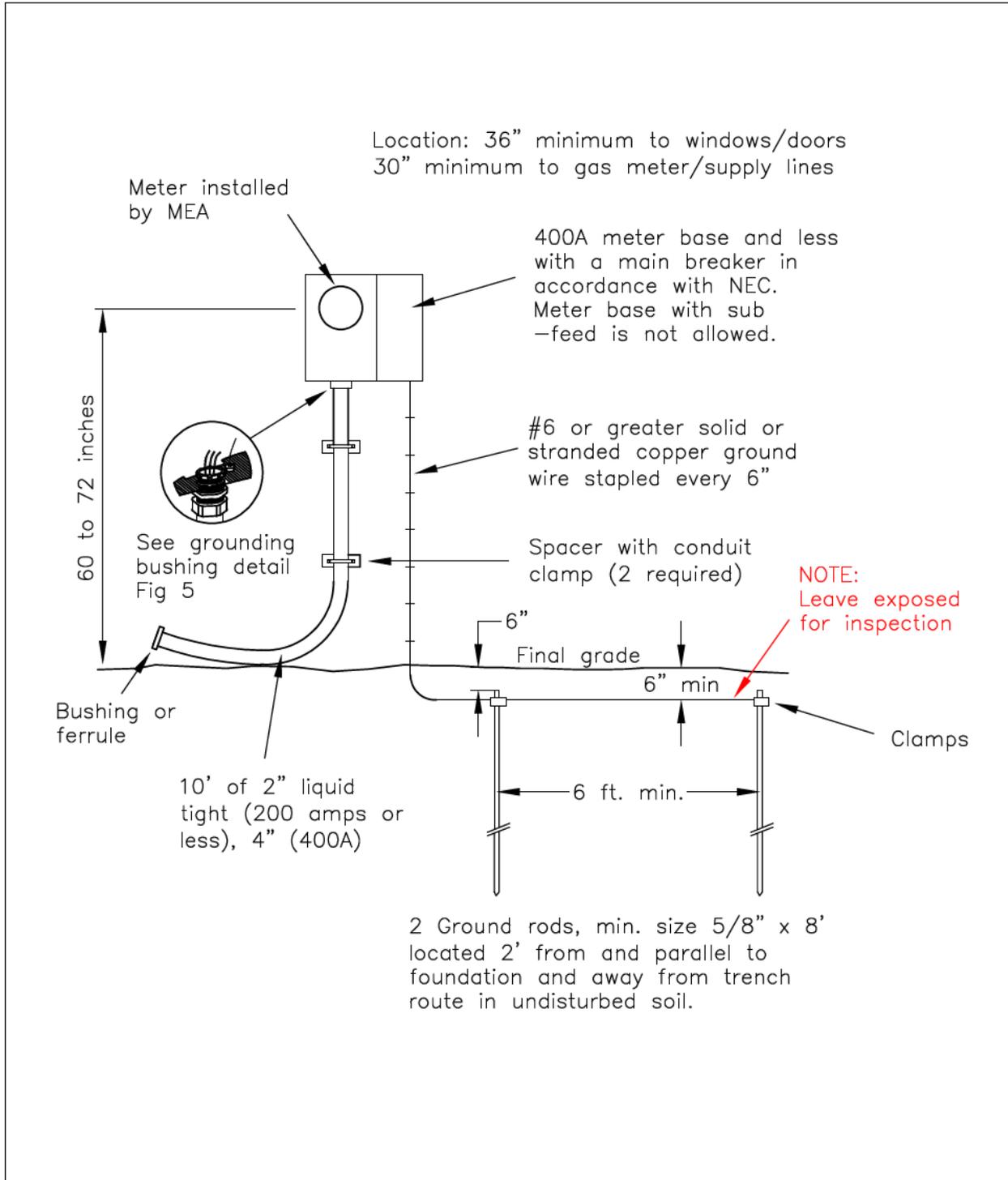


Figure 4: Underground Connection Detail

Residential or Commercial

(SEE PHOTOS 1-2 ON PAGE 37)

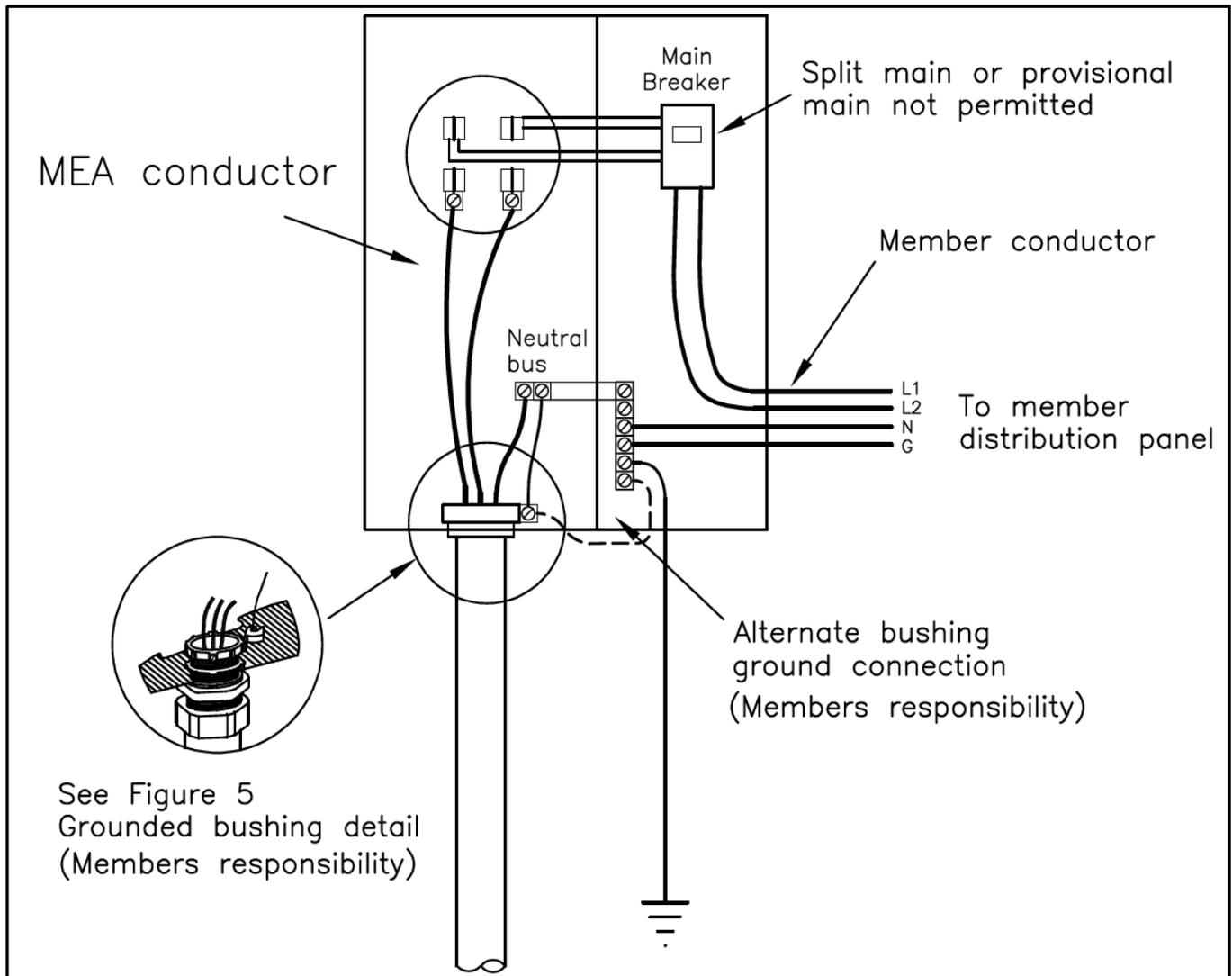


Figure 5: Grounding Bushing Detail Residential or Commercial

(SEE PHOTOS 1-2 ON PAGE 37)

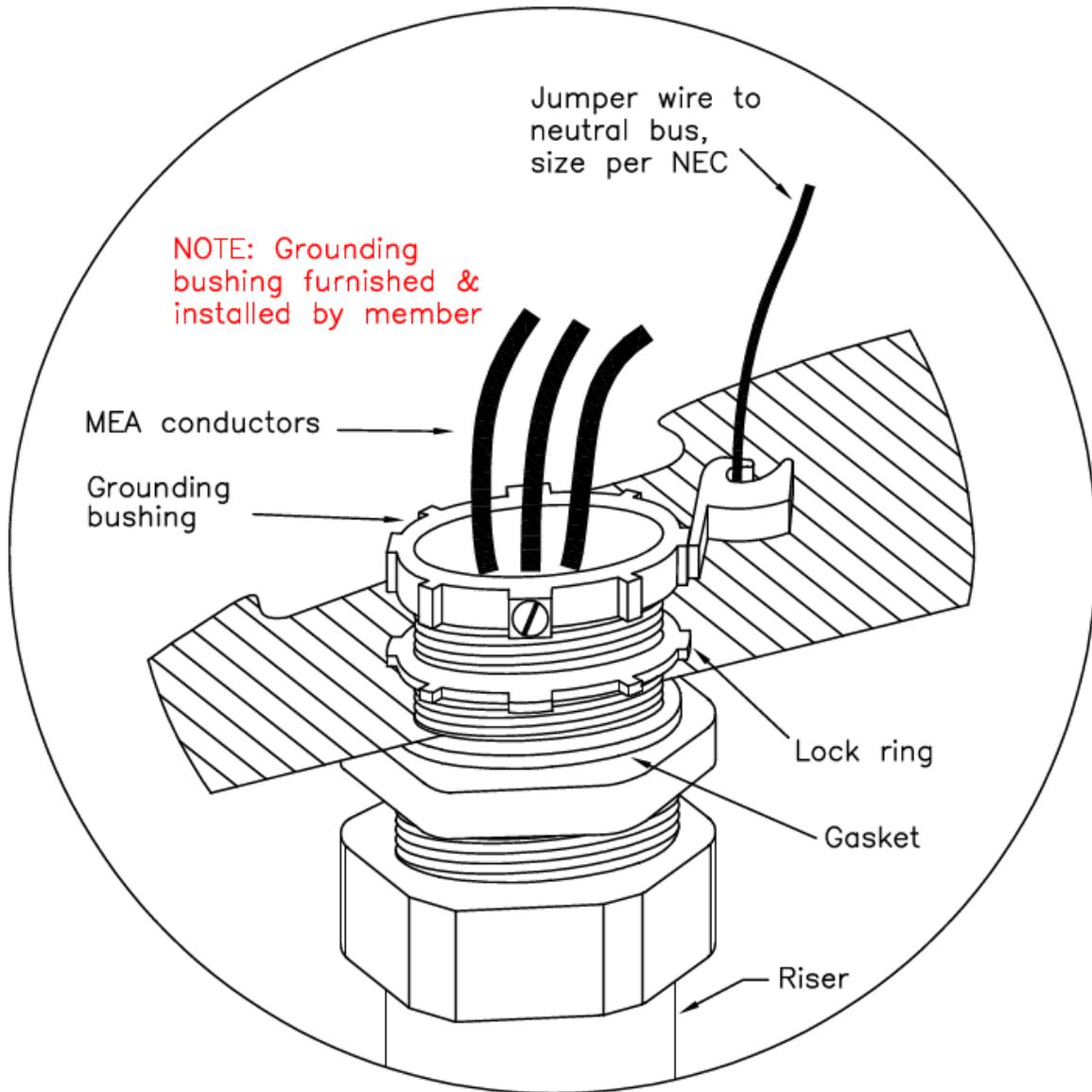


Figure 6: Eave Side Overhead Service, Periscope – Residential or Commercial

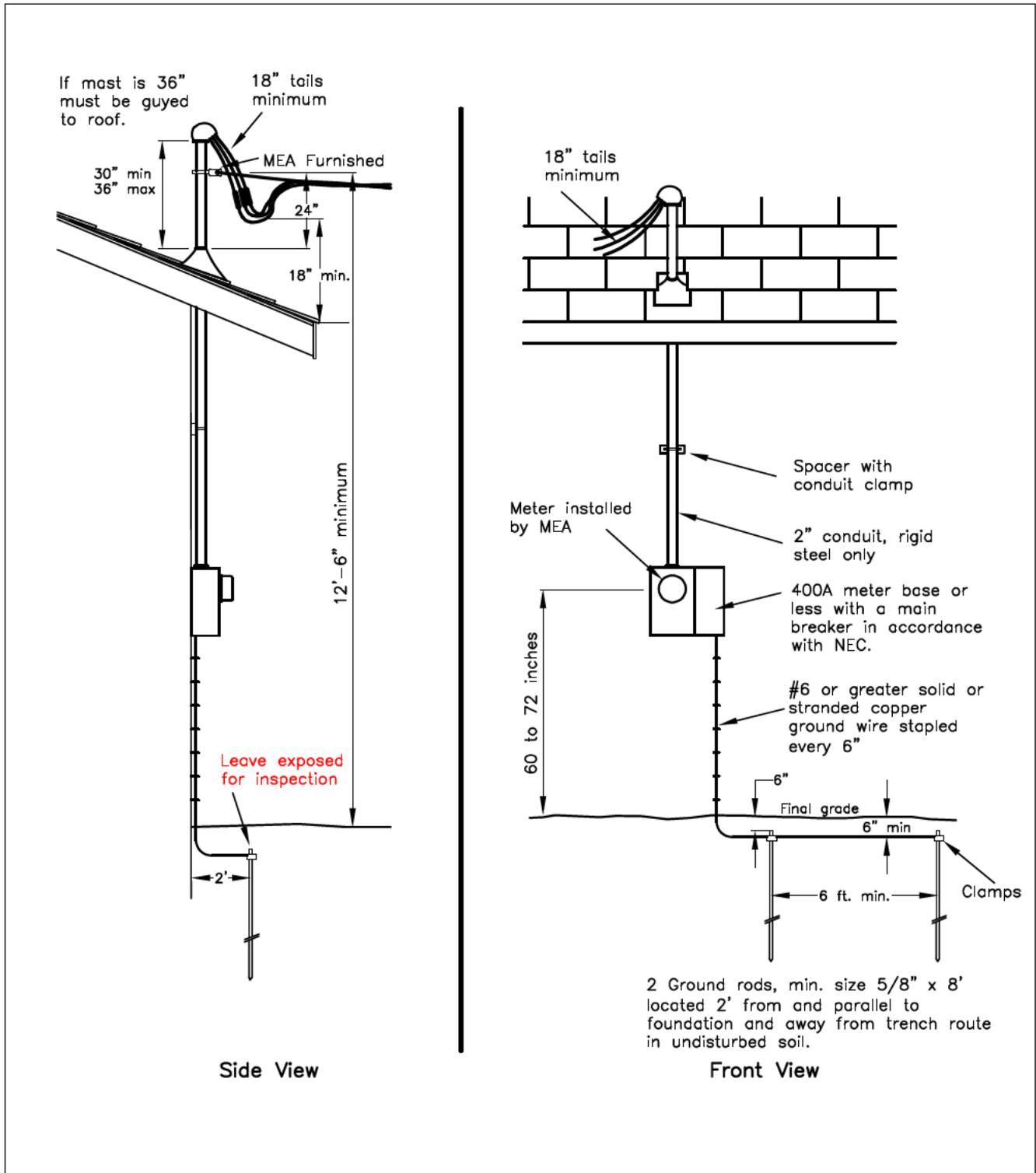


Figure 7: Gable End Overhead Service
Residential or Commercial

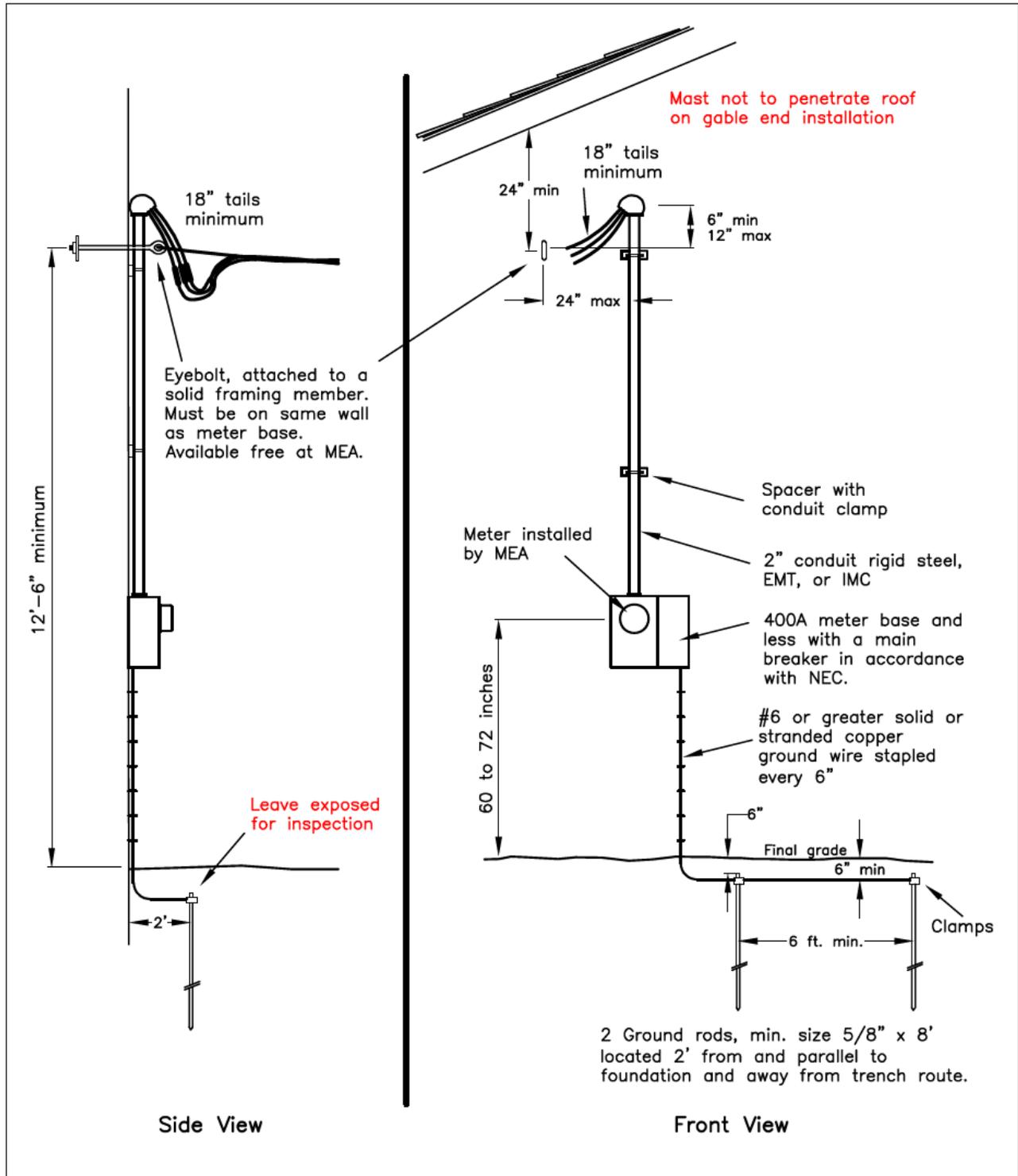


Figure 8: Overhead Connection Detail
Residential or Commercial

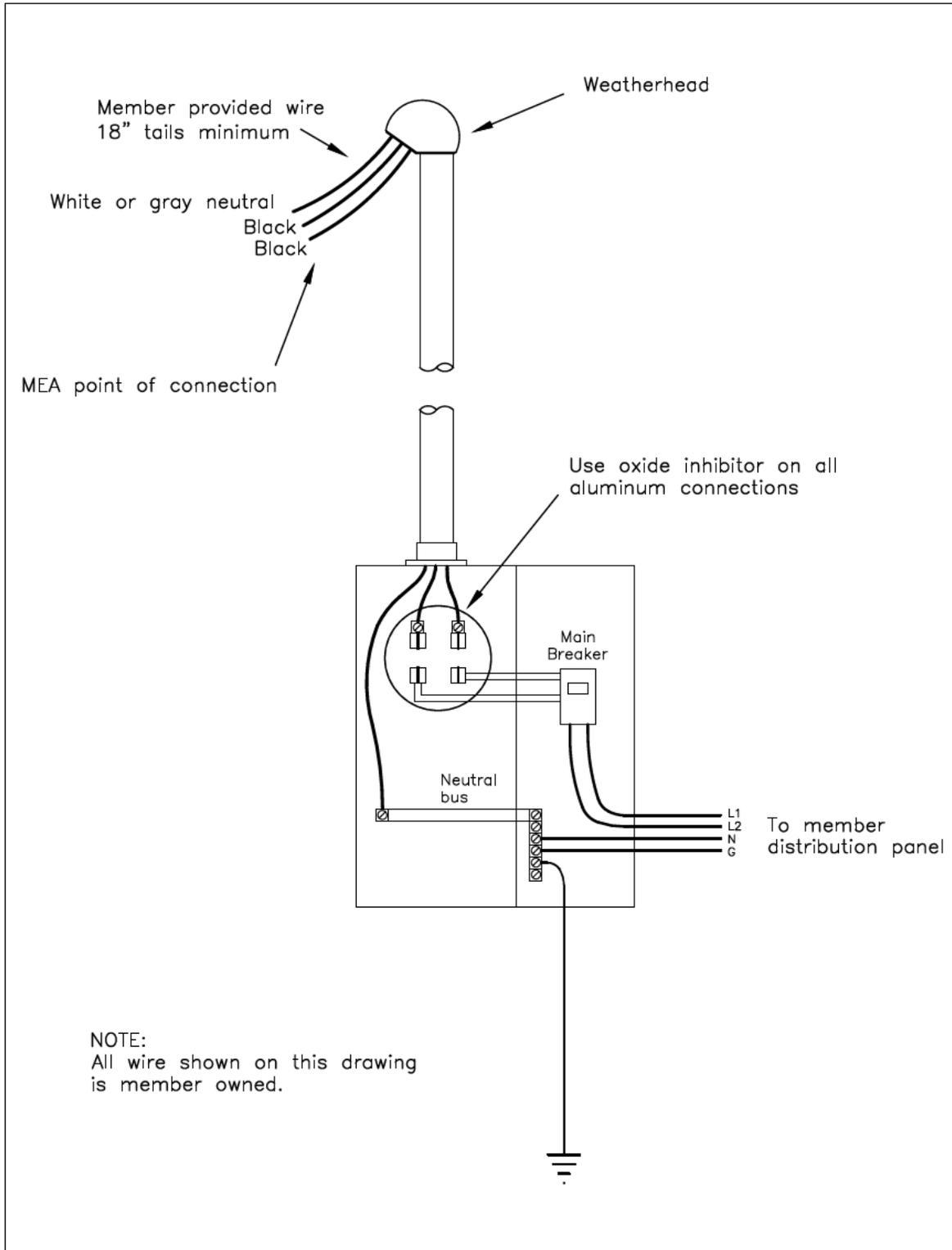


Figure 9: Remote Meter Pedestal

Residential or Commercial

(SEE PHOTO 8 ON PAGE 41)

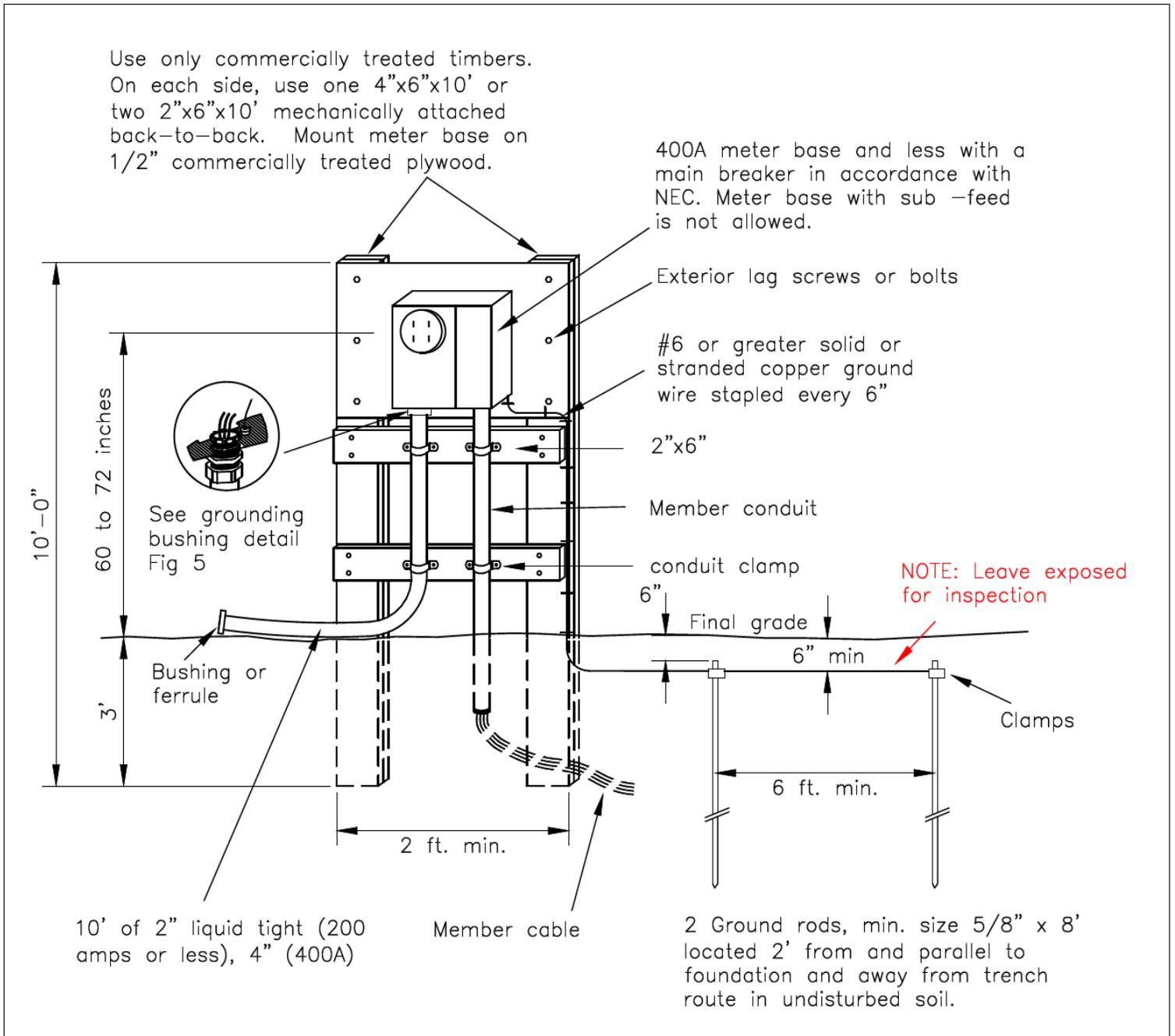
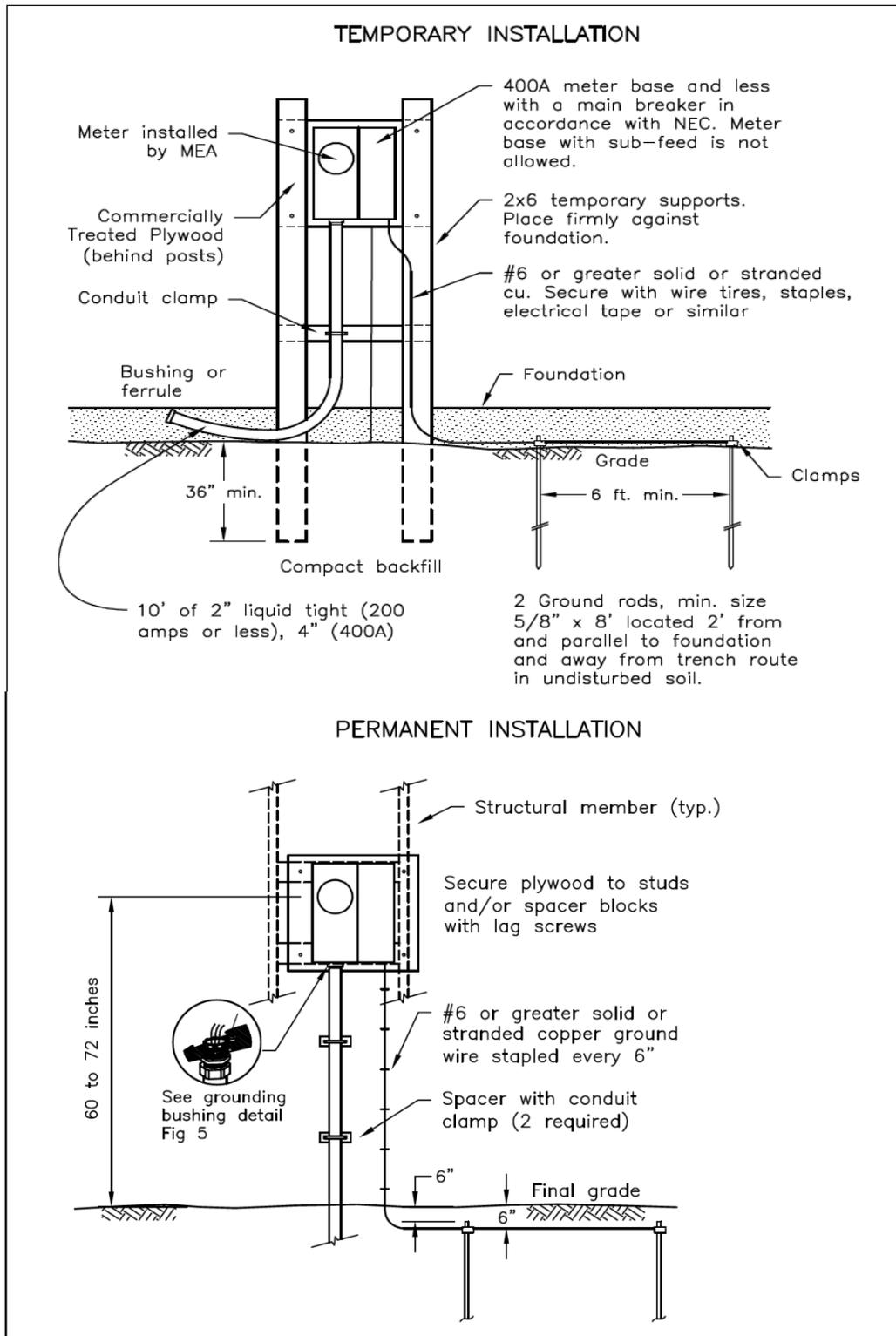
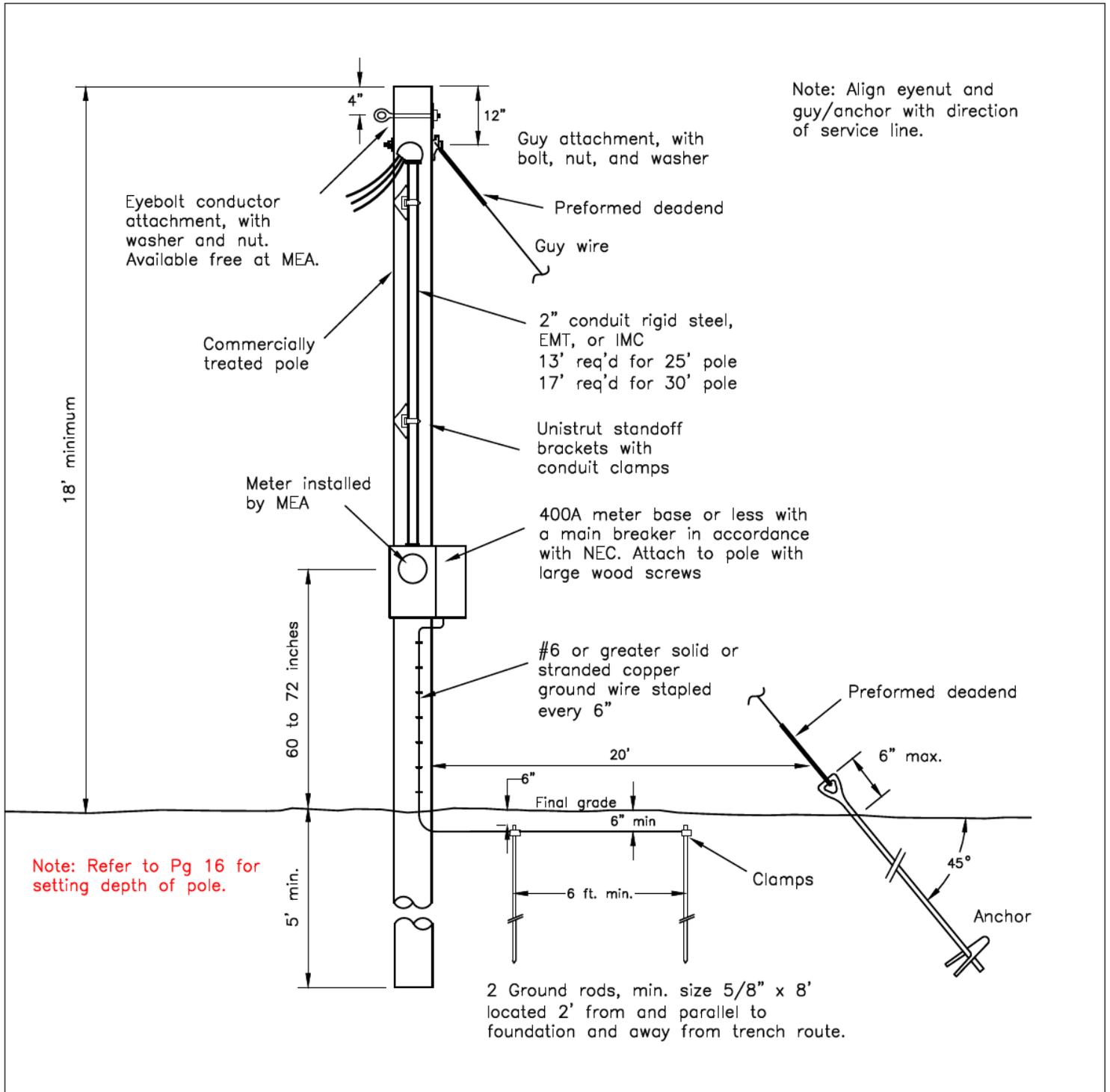


Figure 10: Temporary to Permanent Meter Pedestal

Residential or Commercial



**Figure 11: Meter Pole Service
Residential or Commercial**



**Figure 13: Single-Phase or Three-Phase Underground Service
(More than 6 Units) (Commercial Only)**

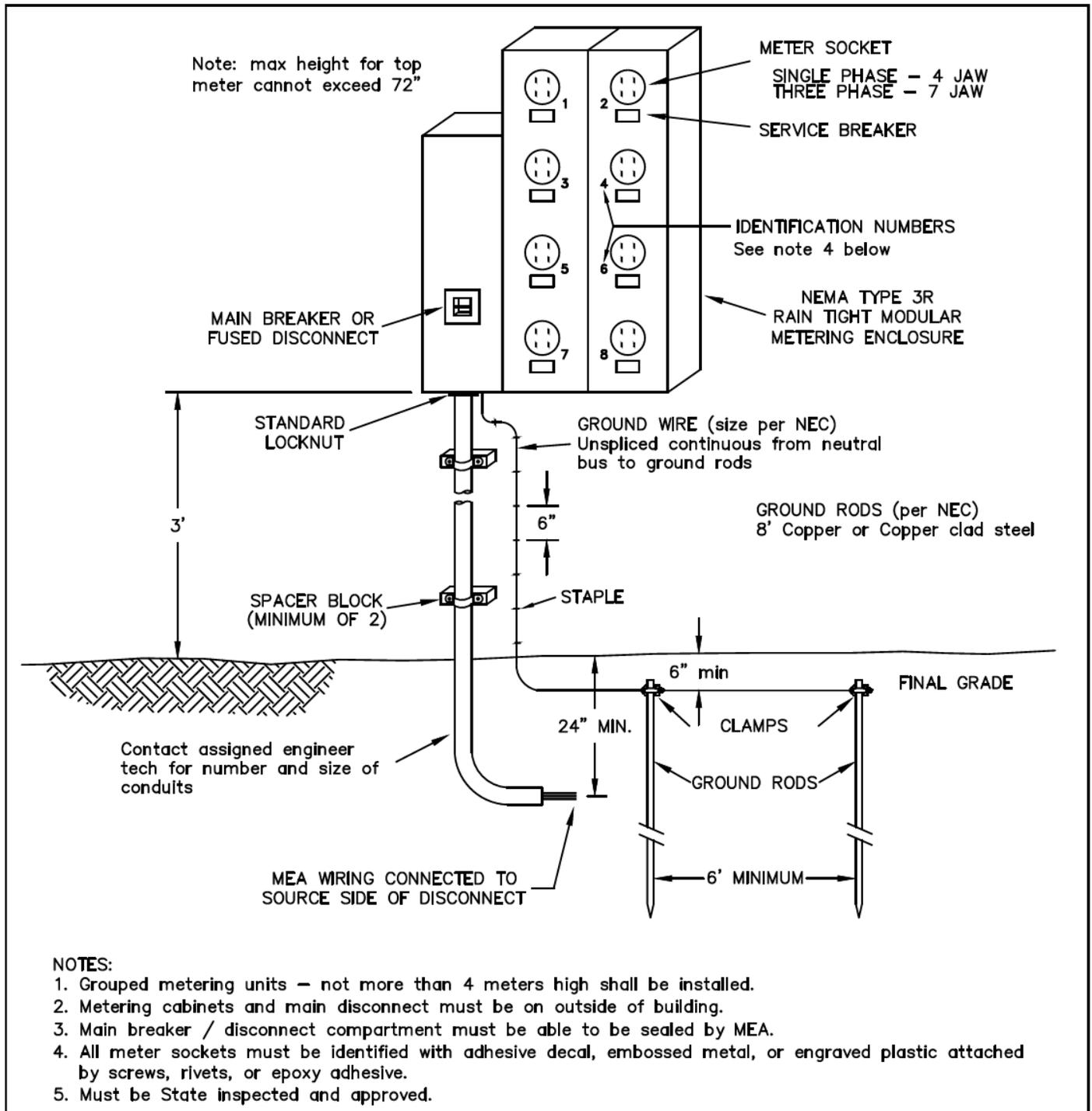
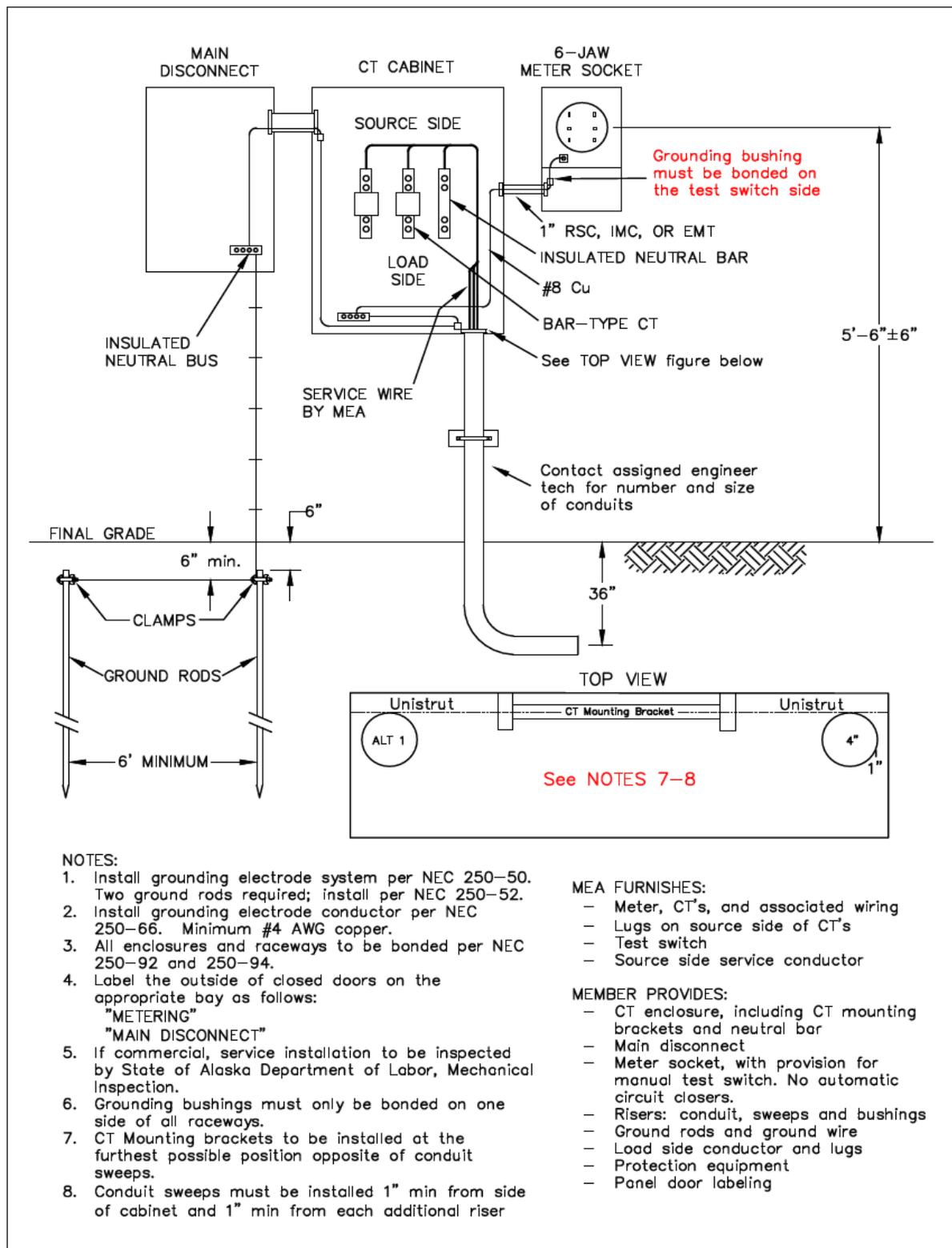
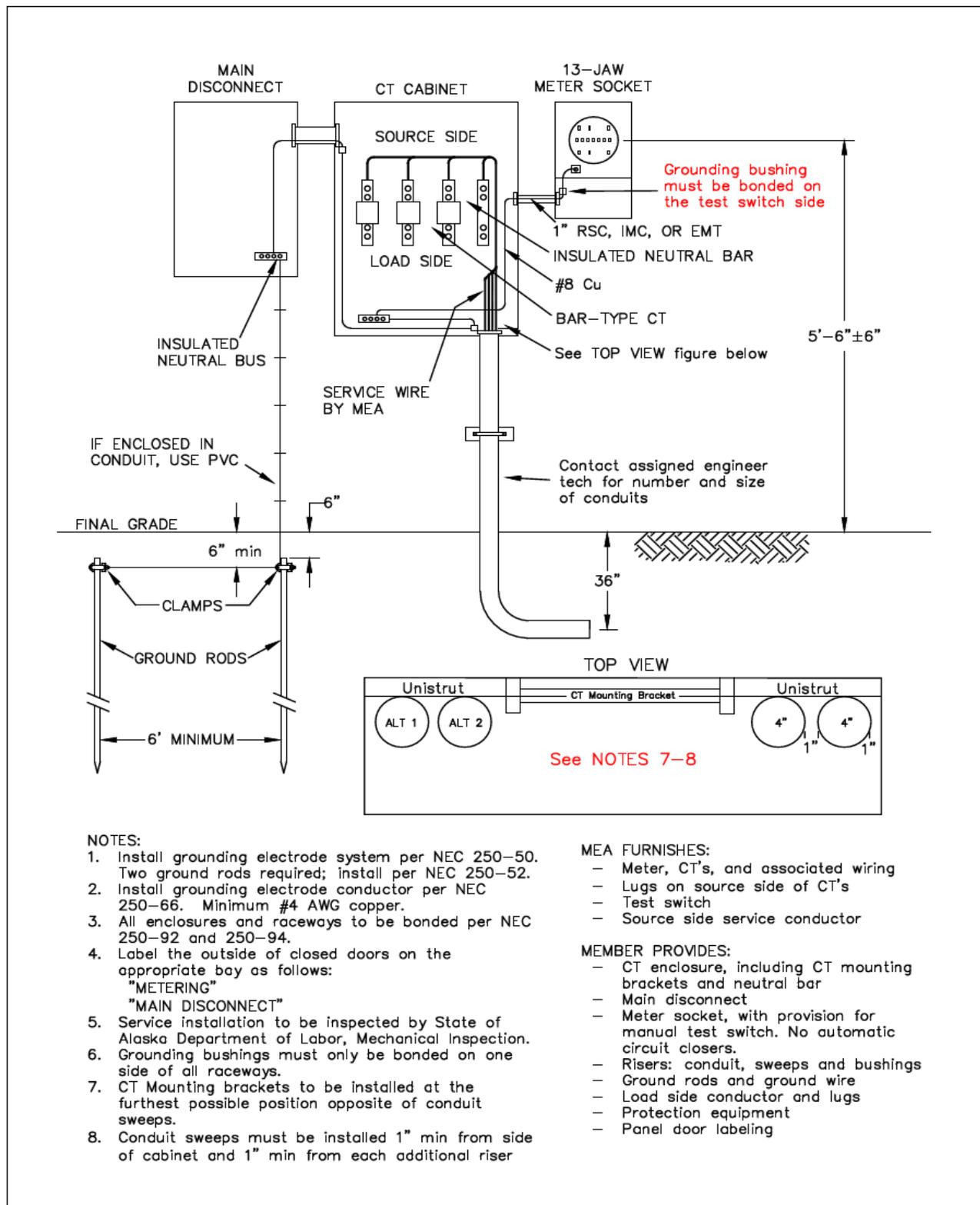


Figure 14: Single-Phase CT Service, 400 Amp, 120/240 Volt or 240/480 Volt

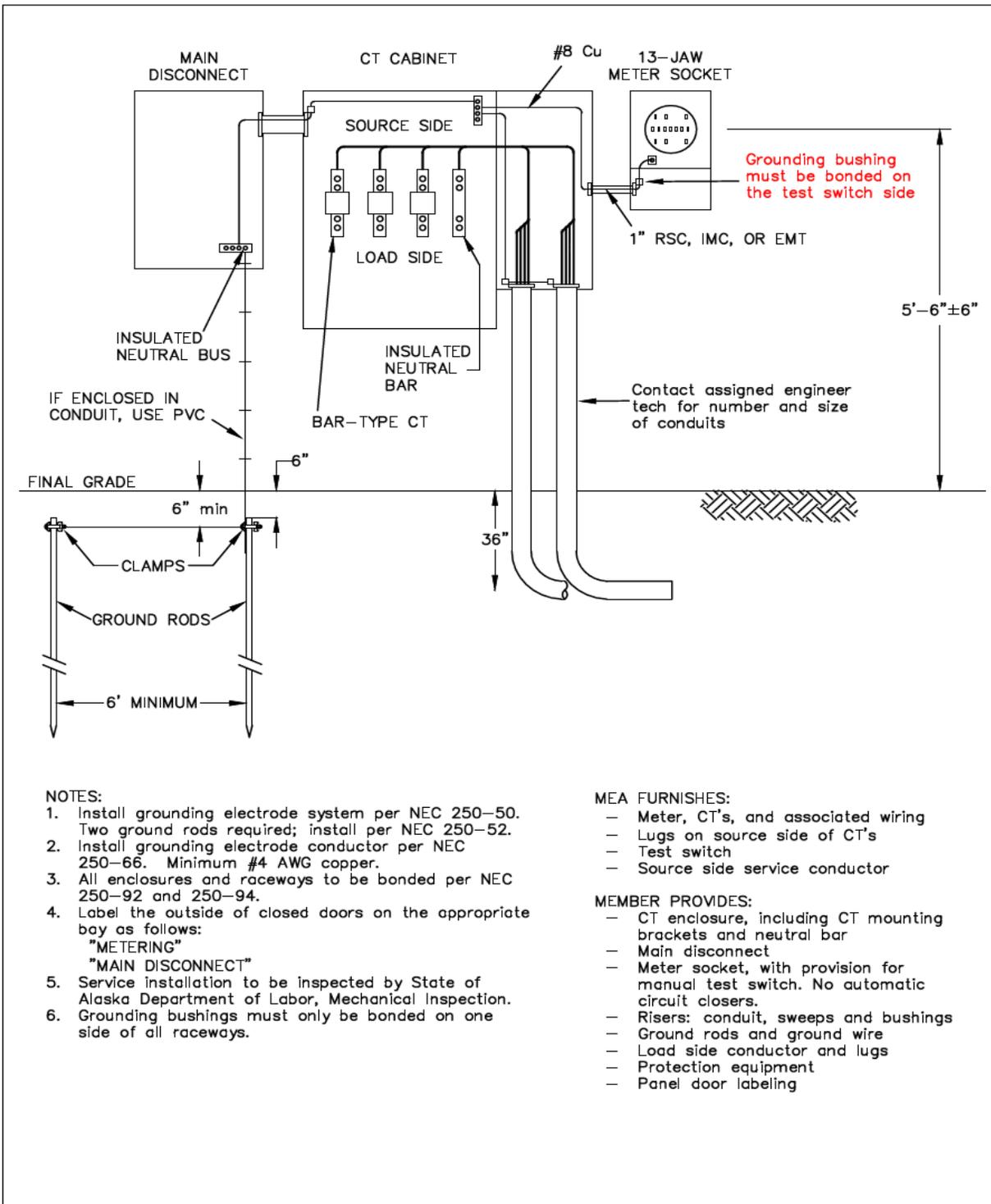


**Figure 15: Three-Phase CT Service, 400 Amp to 600 Amp
208Y/120 Volt or 480Y/277 Volt**



**Figure 16: Three-Phase CT Service, 600 to 800 Amp
208Y/120 Volt or 480Y/277 Volt**

NOTE: 801AMP - 1200AMP WILL REQUIRE WINDOW CT OR SWITCHBOARD STYLE CABINET, CONTACT MEA FOR PRE-APPROVAL BEFORE PURCHASE AND INSTALL



**Figure 17: Three-Phase CT Service, Service Enclosure, 1201 Amp or Greater
208Y/120 Volt or 480Y/277 Volt**

NOTE: 801AMP - 1200AMP WILL REQUIRE WINDOW CT OR SWITCHBOARD STYLE CABINET, CONTACT MEA FOR PRE-APPROVAL BEFORE PURCHASE AND INSTALL

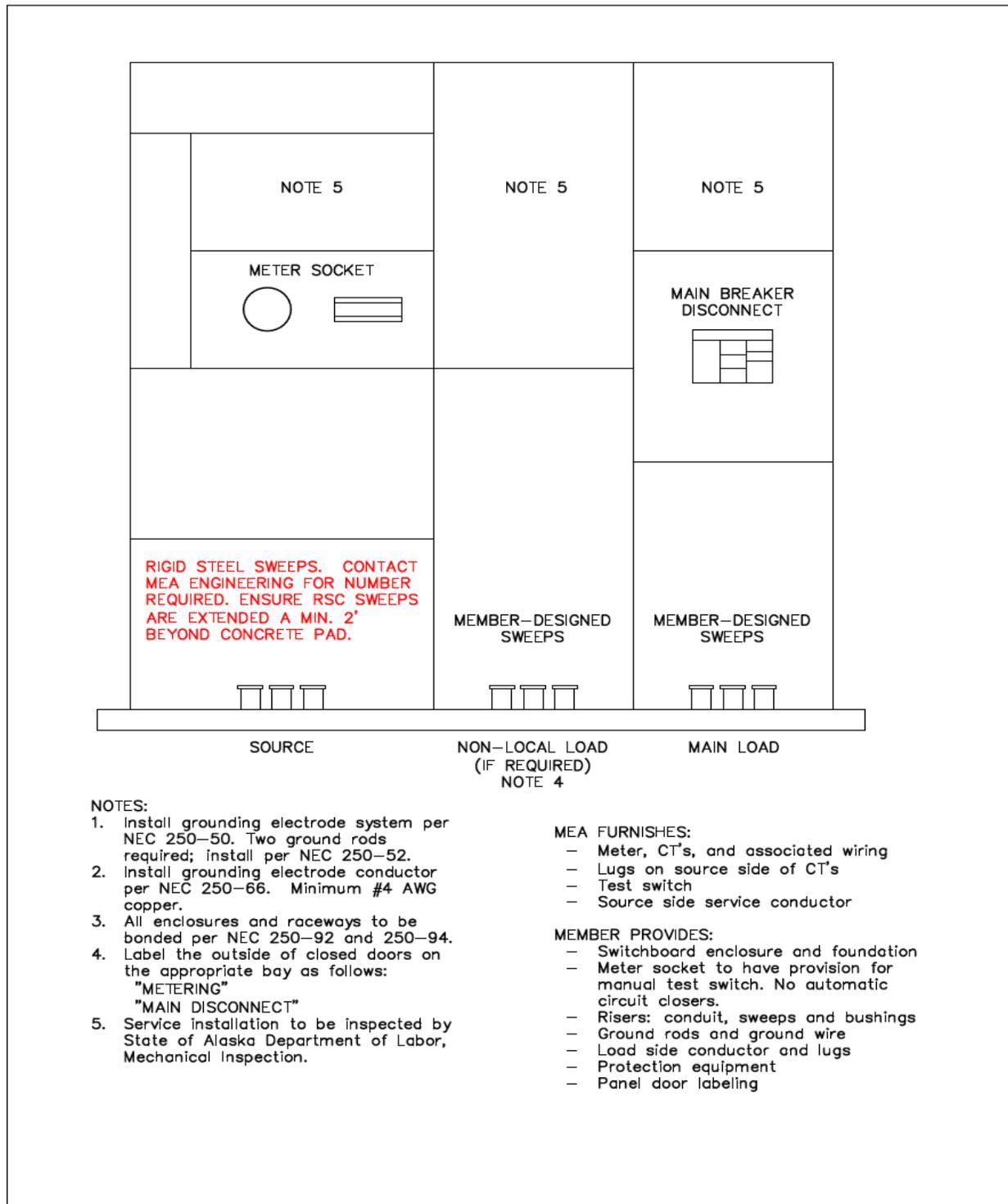


Figure 18: Standby Generator, Alternative 1

**Generator Supplies All Loads
Residential or Commercial**

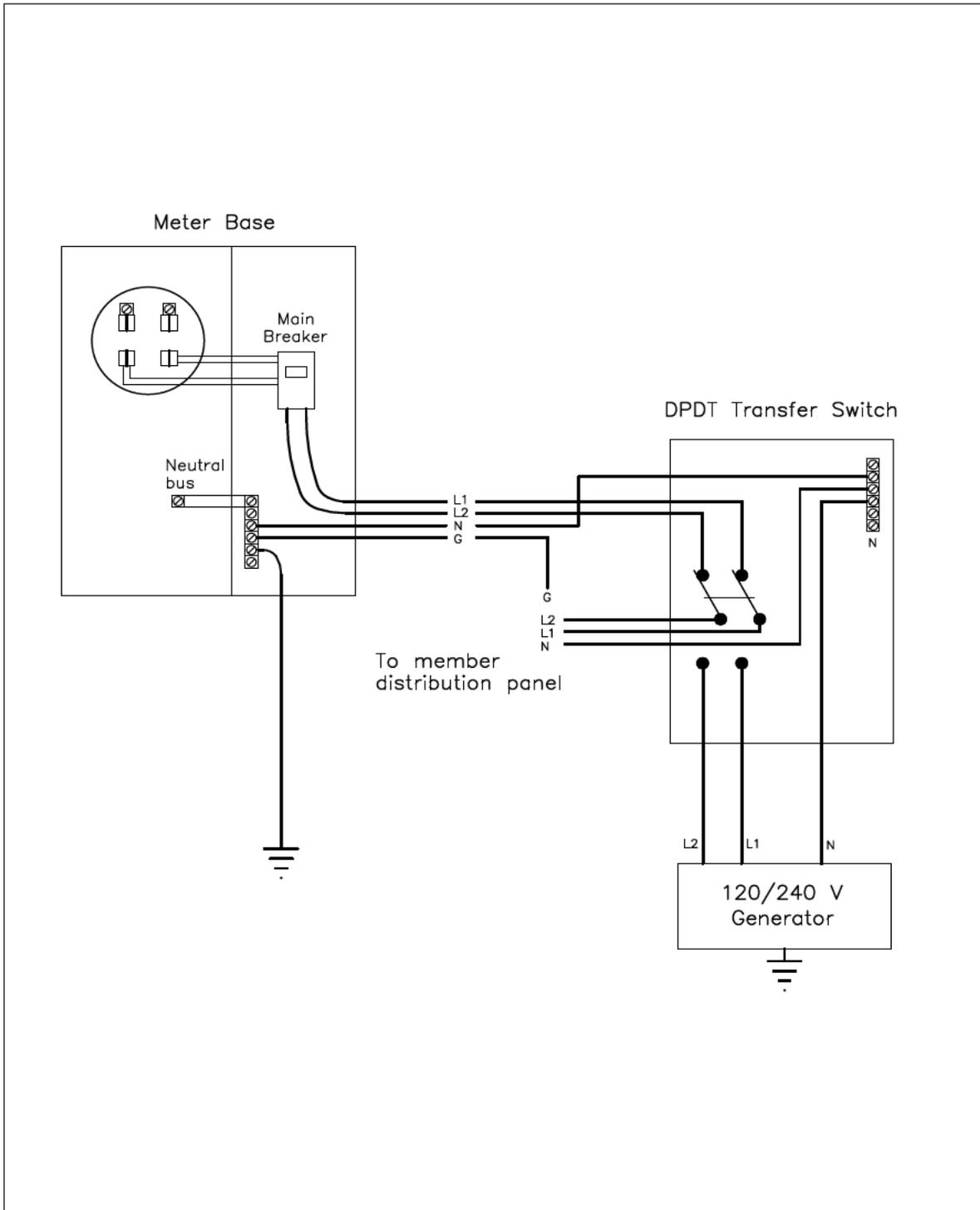
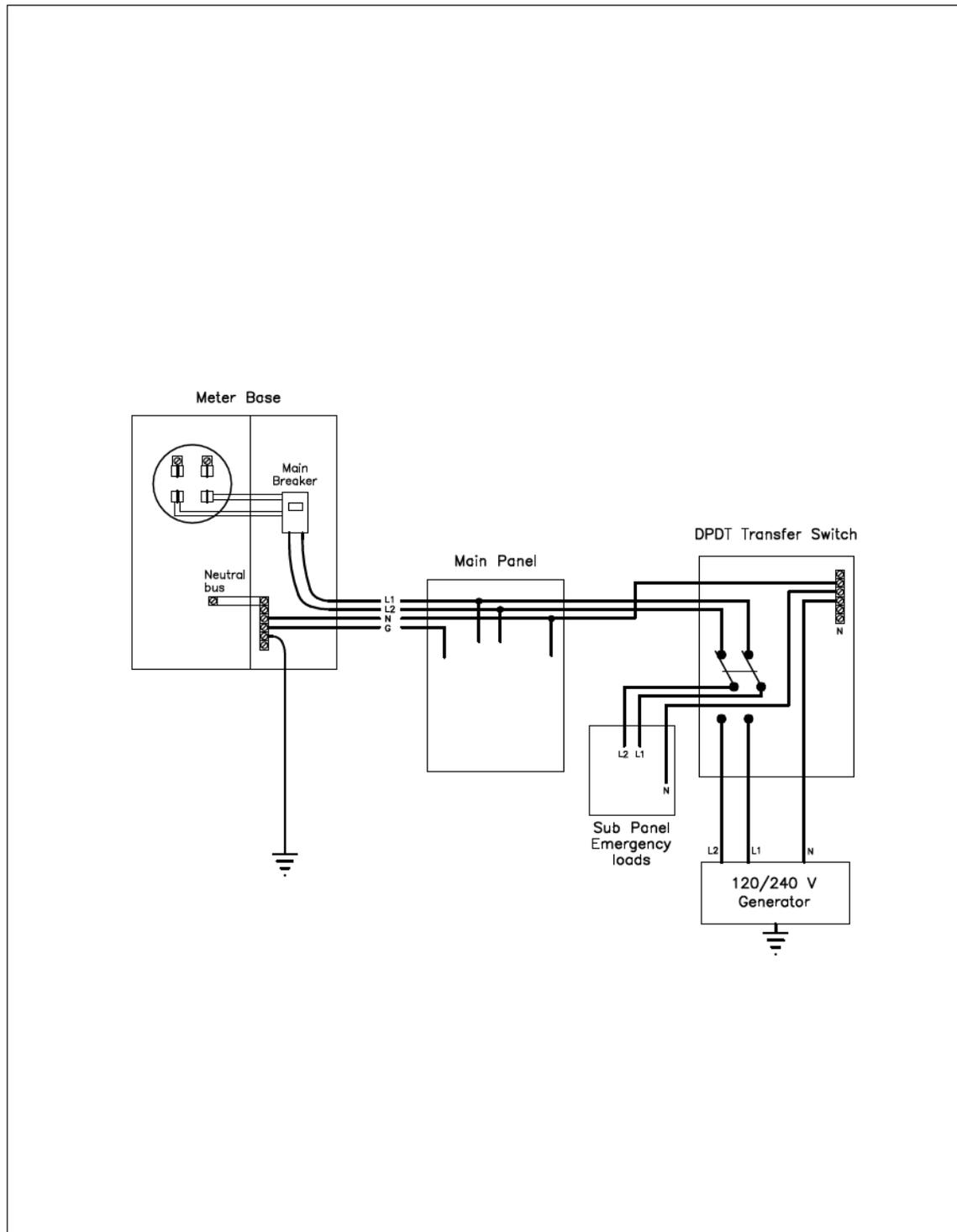


Figure 19: Standby Generator, Alternative 2
Generator Supplies Selected Critical Loads Only
Residential or Commercial



Acceptable Grounding Detail Examples

Example 1



Grounding bushing is bonded to neutral bus bar via grounding lug

Example 2



Grounding bushing is bonded to neutral bus bar via grounding lug and main ground wire is grounded to Main bus bar that connects to ground rods

Acceptable Grounding Detail Examples (Continuing)

Example 3

Example 4



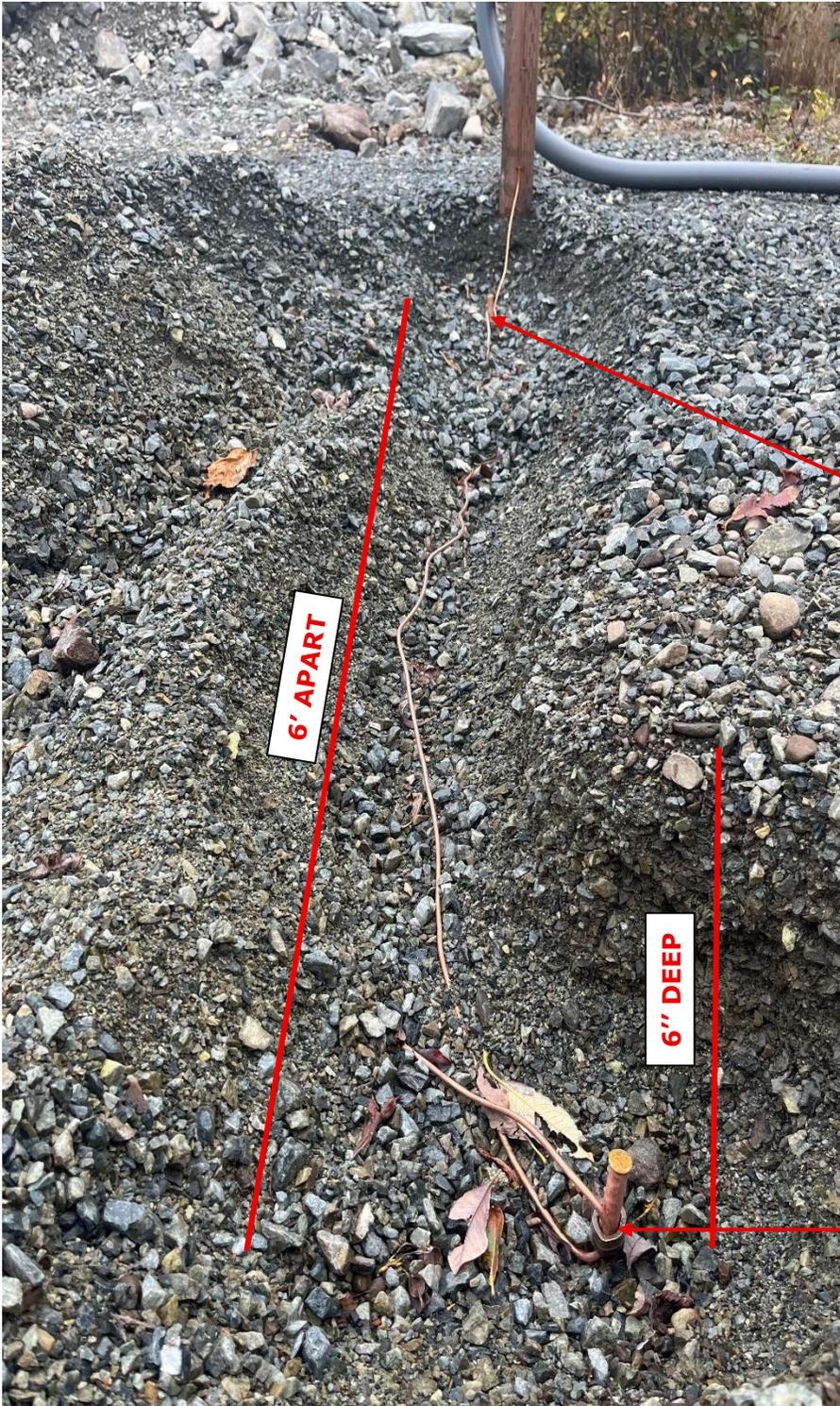
Two ground rods 6' apart, 2' away from foundation, and buried 6" below final grade. Ground wire is in a 6" trench and exposed



The tip of the ground is 6" below final grade

Acceptable Grounding Detail Example on Remote Meter Pedestal

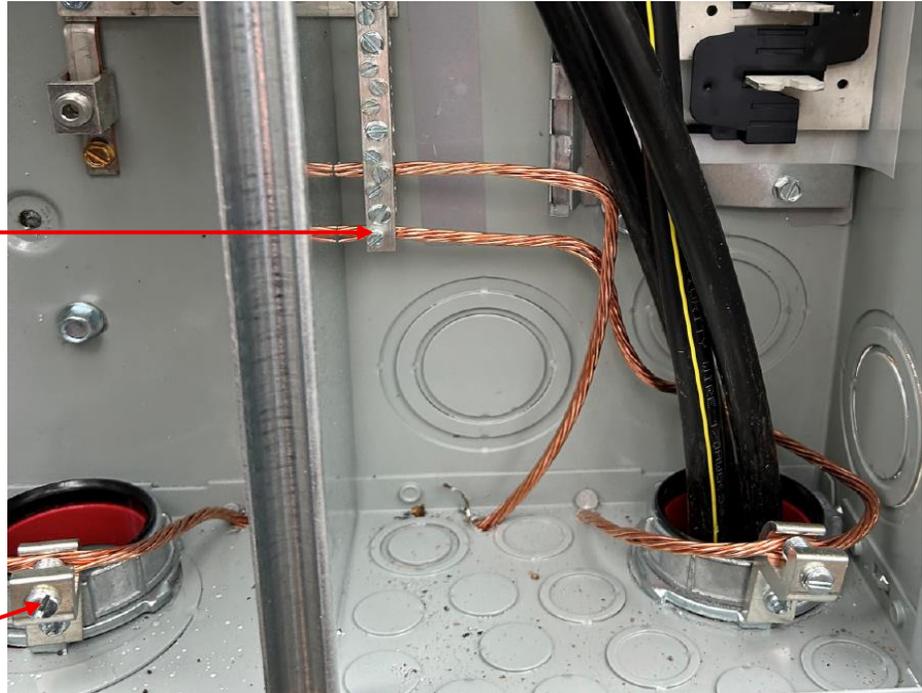
Example 5



Ground Rods are 6" below final grade and 6' apart. The continuous ground wire lays in a 6" trench

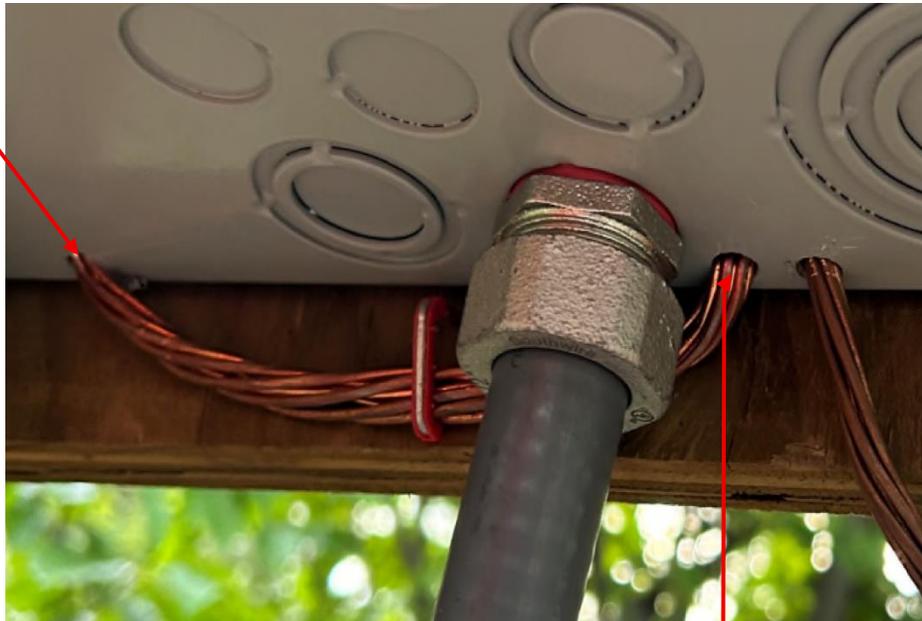
Acceptable Alternate Grounding Detail Examples

Example 6



Because there is no ground lug on the meter side, the grounding bushing bonding jumper goes through a knockout underneath the meter-base and back through a drilled hole and is terminated to the neutral bus bar

Example 7



Acceptable Remote Meter Pedestal Example

Example 8

