Electrical Service Standards

Last Updated: September 18, 2025

Poudre Valley REA may alter, amend, or supplement this “Standards” at any time. Any such changes to the “Standards” will be effective when they are posted to our website and will apply to projects started on or after the date and time of posting.

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1 Statement of Purpose

Poudre Valley Rural Electric Association (PVREA) is a member-owned electric cooperative. Our mission is to provide safe, reliable, efficient energy solutions with exceptional service to our members.

We cover 2,000 square miles of service territory in Larimer, Weld, and Boulder counties with over 4,000 miles of powerlines. We are your local member-owned, not-for-profit cooperative, your trusted source of information, and a community partner you can depend on. We are led by those we serve.

This document establishes uniform Electric Service Standards (hereinafter the "Standards") for providing electric service, electrical service installations, and quality of service issues. Members' wiring and installations intended for connection to PVREA's electrical distribution system must comply with all rules, regulations, and policies of PVREA, the National Electric Safety Code® (NESC), the National Electrical Code® (NEC), and any other codes and/or regulations of governmental Authority(s) Having Jurisdiction (AHJ) in the areas served by PVREA.

These Standards are intended to assist members, builders, engineers, contractors, electricians, and inspectors in planning, installations, and use of member electrical facilities for new, rewired, altered, or repaired wiring and/or equipment installations. This manual is not intended to ensure the adequacy or safety of the members' wiring or equipment. The member and/or their agent(s) shall be responsible for such issues. PVREA does not assume the function of inspecting members' wiring or equipment for adequacy, safety, or compliance with electrical codes. This is the assertion of the governmental authority(s) having jurisdiction in the area.

PVREA will periodically update the Standards on our website at www.pvrea.coop. PVREA may alter, amend, or supplement these Standards at any time. Any such changes to the manual will be effective when they are posted to our website.

Exceptions and Revisions are necessary and required for continued application of work practices, as opposed to exceptions, which are reviewed on a case-by-case basis by the PVREA Electrical Service Requirements Standards Committee. Suggestions or requests can be submitted online via the "PVREA Service Standards – Exception/Revision Form" (Appendix).

These Standards are provided as-is, without any express or implied warranties whatsoever, including but not limited to warranties of merchantability or fitness for a particular purpose. The member, their agent(s) or user assumes full responsibility for the quality, performance, and accuracy of the information contained herein when applied to their particular circumstances. PVREA shall not be liable for any damages whatsoever, including lost profits, lost savings, lost opportunity costs, or other incidental or consequential damages or any other damages in tort or contract or otherwise resulting from the use or inability to interpret, apply or use these Standards, even if PVREA has been advised of the potential for such damages.

2 Definitions

The following definitions are furnished for the appropriate interpretation of terms used throughout these Standards and are not necessarily universally accepted definitions.

AUTHORITY HAVINIG JURISDICTION (AHJ):
The governmental or non-governmental entities responsible for enforcing building codes, fire codes, and other regulations in each jurisdiction.

CLOSED LOOP:
Temporarily unmetered electrical service.

COLD SEQUENCE METERING:
The utilization of a disconnect device between the electric meter and the supply source, so that the meter components are de-energized.

CONDUIT:
Conduit is a standard tubular material used to protect and route electrical wiring. It provides mechanical protection and may be installed exposed, buried underground, or embedded within building structures, depending on code requirements and application needs.

CURRENT TRANSFOMER (CT):
An instrument transformer designed for the measurement of current.

DISTRIBUTION STYSTEM:
System of wires, poles, meters, and other utility equipment that facilitates the delivery of electricity to the member.

DE-ENERGIZE:
A state in which all sources of electrical energy have been disconnected, deactivated, or otherwise isolated so that no electrical energy is present or can be released in the equipment or circuit being worked on.

DEMARCATION POINT:
The physical point at which PVREA's electrical system ends, and the member-owned electrical system begins.

DISCONNECT:
A device, group of devices, or other method used to isolate the conductors of a circuit from their source of electrical power.

ENERGIZED:
In a state where electrical conductors or components are carrying voltage or are electrically connected to a source of electrical power.

FORCE MAJEURE:
An extraordinary event or effect (e.g., war, labor strike, extreme weather) that cannot be reasonably anticipated or controlled. Such an event can be compared to an act of God.

GANG METERING:
Multiple-position meter socket panels that accommodate several electric meters at a single location. These panels are commonly used in residential, commercial, and industrial settings where multiple units require individual metering, such as in multi-family buildings or commercial complexes.

HOT SEQUENCE METERING:
The electric meter is installed before the main disconnect, so the power is still applied to the meter when the main disconnect is open.

INSTRUMENT RATED METER:
Instrument rated meters use instrument transformers (CT and/or PT) to step down current and/or voltage to lower levels for metering. Instrument rated meters are commonly used to measure electrical energy used for large residential, most commercial, and industrial services.

LINE SIDE:
For the purposes of this manual the term “Line” refers to service equipment on the utility side of the meter.

LOAD SIDE:
For the purposes of this manual the term “Load” refers to service equipment on the member side of the meter, demarcation point, or point of common coupling.

MAKE READY:
Make ready is any powerline work or powerline construction required to accommodate for attachments (joint use) on poles.

METER ON HOUSE (MOH):
Standard residential underground electrical service mounted on a house. These types of services are generally installed within a master planned residential subdivision.

METER ON POLE (MOP):
Standard residential underground electrical service mounted on a PVREA pole. These types of services are generally installed in rural areas where the existing electrical distribution system is primarily overhead.

***NATIONAL ELECTRICAL CODE*® (NEC):**
As published by the National Fire Protection Association as adopted by the state or local authority governing and having jurisdiction relating to the installation of member’s electrical conductors and equipment within public or private buildings and other structures beyond the meter.

***NATIONAL ELECTRICAL SAFETY CODE*® (NESC):**
As IEEE Standards Association and approved by the American National Standards Institute, C2 Committee and made a part of the Public Utilities Commission of the State of Colorado, Rules Regulating the Service of Electric Utilities.

NET METERING:
Net metering is a metering method that allows residential and/or commercial members who generate their own electricity (e.g., solar) to interconnect to the PVREA distribution grid.

POTENTIAL TRANSFORMER (PT):
An instrument transformer that reduces high voltage levels to lower levels for measurement and protection. PTs are also known as voltage transformers (VTs).

PRIMARY SYSTEM:
System of wires, poles, meters, and other utility equipment that facilitates the delivery of medium voltage typically between 4.16KV – 35kV.

PROOF CONDUIT:
Proofing conduit is the act of installing pulling rope into the conduit system. The conduit system will "proof" if the pulling rope is installed without any obstructions within the conduit. Obstructions within the conduit system must be dug up by the member/contractor or repaired.

SELF-CONTAINED METER:
Standard electric meter which is commonly used to measure electrical energy use for most residential and small commercial members.

SECONDARY SYSTEM:
Refers to the low-voltage segment of the distribution system—typically under 480 volts—located downstream of the distribution transformer.

SERVICE:
The furnishing of electric energy for the exclusive use of the individual member.

SERVICE CONDUCTORS:
The conductors between the terminals of the member's service equipment and the point of connection to the utility equipment.

TRANSFORMER:
Electrical equipment installed in conjunction with electric distribution lines for the purpose of reducing medium (primary) voltage to low (secondary) voltage to provide service directly to residential, commercial, or industrial members.

UFER GROUND:
A concrete incased ground electrode that is electrically connected to the conductive steel reinforcing bars or rods in a building's foundation to connect electrical systems to earth.

3 General Information

3.1 General.

Poudre Valley Rural Electric Association
www.pvrea.coop

Physical Address:
7649 REA Parkway, Fort Collins, Colorado 80528

Mailing Address:
P.O. Box 272550, Fort Collins, Colorado 80527

Toll-Free Phone:
1.800.432.1012

Email Address:
pvrea@pvrea.coop

3.2 Rules, Regulations, Service Territory, etc.

PVREA's Rules and Regulations, Bylaws, Rates, Terms of Service, and Service Territory map can be found on PVREA's website at www.pvrea.copp.

3.3 Application for Service.

Members may contact PVREA for information related to the application for new electric service connections or changes in an existing service. The PVREA application for service can be accessed on the PVREA website or obtained at the PVREA office. Before an electric service connection can be made to the member's (applicant's) wiring system, it is necessary that:

3.3.1 The member has submitted a complete application for service, including required submittals, for service.

3.3.2 The applicant has met all requirements of the PVREA Electrical Service Requirements, Rules, and Regulations.

3.3.3 PVREA has completed its construction (as required).

3.3.4 The AHJ has notified PVREA of approval of the member's installation of equipment and facilities by providing an inspection release.

3.3.5 Where no AHJ has jurisdiction (e.g., railroad), PVREA, for the member's protection, may require written confirmation from the wiring electrician or engineer that the member's installation conforms to the National Electrical Code®.

3.3.6 PVREA does not assume liability for the design, operation, or condition of the member's installation. Compliance with these Standards and/or approval by PVREA is not an endorsement or warranty of the member's facilities. Compliance with these Standards and/or approval by PVREA is an assurance that the electric service will be connected to the distribution system.

3.3.7 The member or AHJ is solely responsible for determining the adequacy, safety, and legality of all plans, specifications, facilities, equipment, sites, easements, installation, and other characteristics of the electric service.

3.3.8 PVREA will not install facilities to serve a member until the member has completed a service application and has their new account set up with PVREA, as well as all applicable Electric Service Contracts, easements, and charges for construction and service, as required by PVREA, have been completed, signed and paid in full.

4 PVREA Guidelines, Engineering, and Construction Procedures

4.1 Typical Construction Projects and Timelines.

4.1.1 PVREA's construction timelines vary for different types and scopes of projects. Projects may vary from a new 200A service to a multi-lot residential subdivision. The following timelines are approximate and may be extended or condensed at any given point within the project due to various issues (e.g., material shortages) outside of PVREA's control.

The construction timeline depends on Member Readiness. Member Readiness may include, but is not limited to curb and gutter complete, driveways installed, building sites or foundations established or located, overall site preparation (sub-grade) with final grades at equipment locations, property pins located and marked and/or staked, easements executed, inspections completed, contracts signed, application for electric service submitted, invoices remitted, and deposits paid.

PVREA recognizes that members may have projects with special requirements and not all projects are the same. PVREA is committed to working closely with our members to help meet their expected in-service date. PVREA project scopes and approximate timelines are as follows.

4.2 Service Installations.

4.2.1 PVREA installation of new underground 200A or 320A Meter on House (MOH) with existing electrical primary underground facilities and existing pad mount transformer.

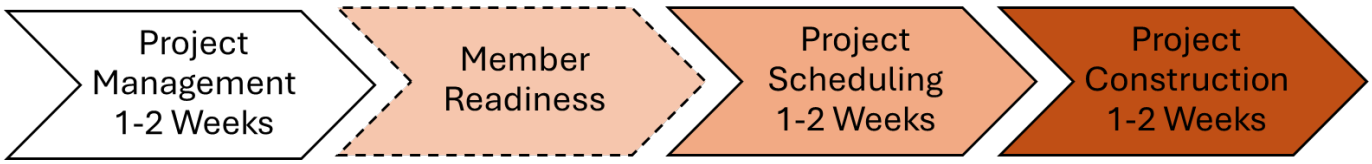
4.2.2 PVREA installation of new underground 200A pedestal (single or double) or 320A meter pedestal (single) with existing electric primary underground facilities and existing pad mount transformer.

4.2.3 PVREA installation of new overhead 200A or 320A Meter on Pole (MOP) with an existing electric pole and pole mount transformer.

4.2.4 Member installed, PVREA connected temporary construction service with all primary electric facilities (overhead and/or underground) installed including the transformer (overhead and/or underground).

4.2.5 PVREA yard lighting installation with existing electric primary or service pole or secondary pole.

Service Installation Typical Timeframe



4.3 Small Scope Projects:

4.3.1 PVREA installation of new underground 200A or 320A Meter on House (MOH) with existing electric primary underground facilities and requiring a new installation of a pad mount transformer.

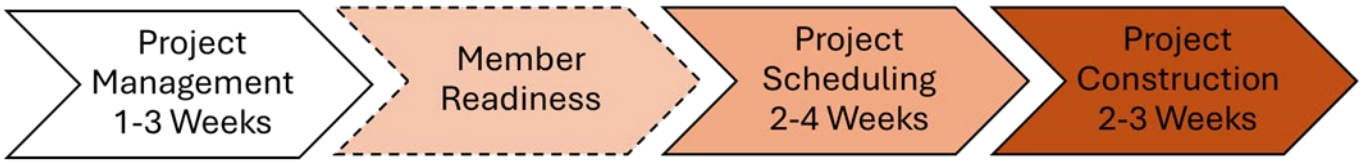
4.3.2 PVREA installation of new underground 200A pedestal (single or double) or 320A meter pedestal (single) with existing electric primary underground facilities and requiring a new installation of a pad mount transformer.

4.3.3 PVREA installation of new overhead 200A or 320A Meter on Pole (MOP) with an existing electric primary pole and the installation of a new pole mount transformer.

4.3.4 Relocation and/or underground conversion of existing electric secondary or service (≈50'-100').

4.3.5 Transformer (overhead or underground) upgrades.

Small Scope Project Typical Timeframe



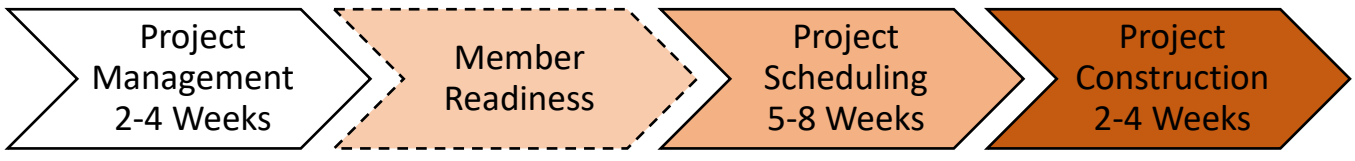
4.4 Medium Scope Projects:

4.4.1 PVREA installation of a new electric overhead service with a new electric overhead (1-phase) primary line extension (≈1,000-1,500') and installation of a new pole mount transformer.

4.4.2 PVREA installation of new electric underground service with at new electric underground (1-phase) primary line extension (≈200'-1,000') and installation of new pad mount transformer.

4.4.3 Relocation and/or underground conversion of existing electric overhead primary line (≈200'-500').

Medium Scope Project Typical Timeframe



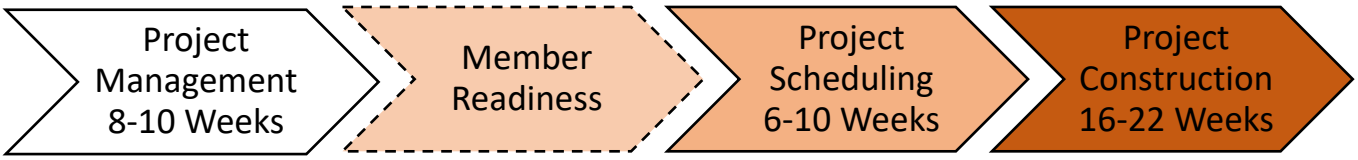
4.5 Large Scope Projects:

4.5.1 New residential subdivision.

4.5.2 New commercial/industrial park.

4.5.3 New condominium/apartment complex(s)

Large Scope Project Typical Timeframe



4.6 Complex Scope Projects:

4.6.1 Road or highway widening.

4.6.2 3-Phase electric overhead to electric underground conversions.

4.6.3 Large 3-phase electric overhead and/or electric underground powerline extensions.

4.7 Safety.

PVREA is committed to delivering safe electricity to our members, educating our community, and protecting our employees. Electrical contact can result in serious injury, or even death. PVREA aims to reduce preventable accidents and help keep members safe in and around your homes and businesses.

4.7.1 **National Electrical Code® (NEC) and National Electrical Safety Code® (NESC)** – For the safety of our members, PVREA employees, and the public, all new member installations must meet or exceed NEC, NESC, Authority(s) Having Jurisdiction (AHJ), and all PVREA Standards and requirements. All new services, upgraded services, and/or modifications to services must be inspected and approved by the governing AHJ.

PVREA will set, and/or reset the meter after the approved service inspection has been received by the AHJ. PVREA does not accept inspection notices from third parties. Approved inspections exceeding 12 months without a meter set will be considered void. Void service inspections must be re-inspected and approved prior to PVREA setting a meter.

Where no AHJ has jurisdiction (e.g., railroad), PVREA, for the member's protection, may require written confirmation from the wiring electrician or engineer that the member's installation conforms to all codes.

4.7.2 **Downed Powerlines** – It's important to remember that it is impossible to tell if a power line is energized by looking at it. It's also hard to tell the difference between power lines and other utility lines. Stay at least 10 feet away from any downed line and always assume that it is energized. Keep others away from any downed lines to protect them and contact PVREA. Once you are safe and clear, call in to PVREA to report the downed lines.

4.7.3 **Call Before You Dig (811)** – There are numerous utility lines buried underground, including powerlines. All underground utilities should be located and marked prior to any excavation. A free and easy way to ensure you're staying safe is to contact Colorado 811 by calling **811** or going online to www.co811.org.

Colorado 811 will notify all Tier 1 utility members to locate and mark underground facilities in your excavation area. Tier 1 members are contacted directly by Colorado 811, while Tier 2 members must be contacted separately by the excavator. To ensure all utilities are properly identified, excavators should coordinate with both Tier 1 and Tier 2 members before digging.

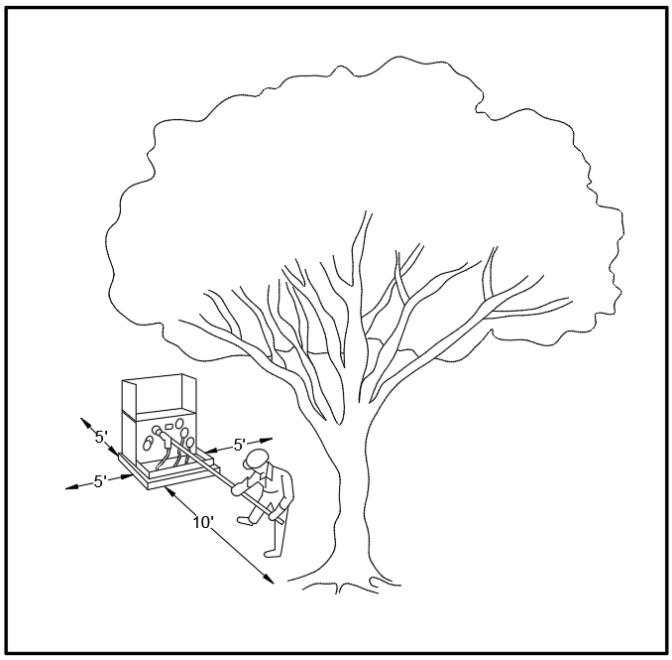
There may be member-owned (private facilities) within your dig area. These facilities will not be located or marked by Colorado 811. Locates of private facilities are the responsibility of the member and/or excavator.

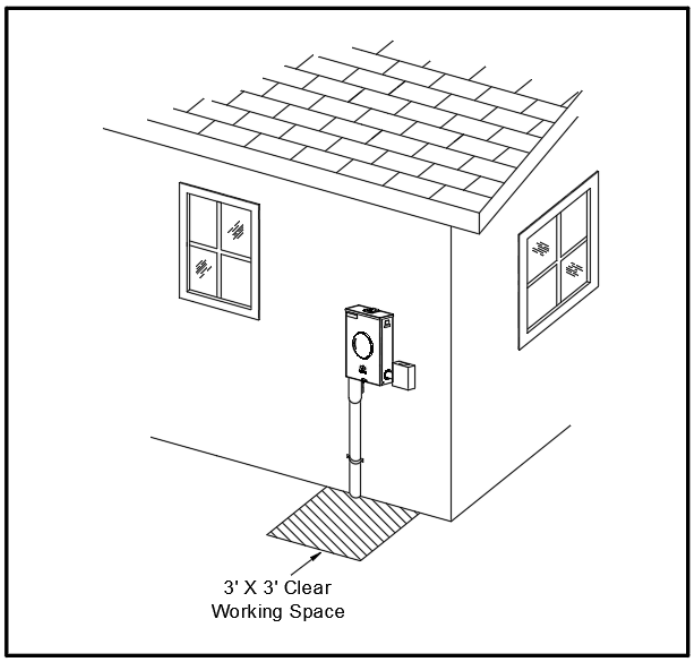
Current Colorado law requires a person, before conducting an excavation, to contact Colorado 811 to learn the location of the underground facilities within the excavation project. Always follow current Colorado laws and follow 811 rules and regs. The excavator must contact Colorado 811 at least three business days before they plan on digging so that all underground utilities can be located and marked with paint and flags. Utility locate marks are good while visible up to 30 calendar days. Colorado law requires the use of reasonable care when digging within 18" of the marked utilities. This area is known as the tolerance zone and hand digging is suggested.

4.7.4 **Look Up and Live** – When working on outdoor projects, always look up and all around to see if there are any powerlines near you or your working equipment. Accidental electrical contact can cause serious injury, or even death. Maintain a minimum 10-foot distance between yourself and your equipment from all utility lines. Always follow and adhere to all OSHA rules and regulations.

4.7.5 **Tree Trimming** – Always stay at least 10 feet away, including the tree fall zone, from powerlines. This includes any equipment you may be on or using – such as ladders or pruners. When required, PVREA may de-energize the powerline for safe tree trimming. Never climb into a tree that is near or contacting a powerline. Call or email PVREA with powerline de-energize inquiries.

When planting trees or planning your home's landscaping, it is important to select the correct tree/shrub for the right location. Good landscaping utilizes shrubs and low-growing trees that are compatible with utility lines. When planting trees or shrubs, keep in mind clear working spaces must be maintained near, around, and in front of PVREA underground pad mounted facilities, including meter bases, pad mounted transformers, pad mounted switches, etc.





PVREA reserves the right to remove, cut, mow, trim, or control by chemical means any vegetation located within the powerline easement area as well as any dead, weak, leaning, or dangerous trees/limbs adjacent to the easement area that PVREA considers a hazard to or otherwise endangers PVREA's facilities.

Members that have trees that need to be trimmed or removed (overhead or underground) because they are too close to PVREA powerlines, facilities, or equipment, may complete a Tree Trimming Request online at www.pvrea.coop or call the PVREA office.

4.7.6 **Driving and Transport (Oversized Loads)** – Verify if oversize, heavy-equipment, or other vehicle type and whatever may be haul has the necessary clearance to safely pass through PVREA's service territory without interfering with powerlines across roadways. Overhead powerline clearance requirements vary for different classes of roadways (highways, county roads). If vehicle/trailer exceeds Department of Transportation (DOT) specifications for vehicle height, contact PVREA to obtain the specific maximum height requirements for vehicle and planned route, or to discuss alternative routes.

In some cases, it may be necessary to de-energize the powerlines at road crossings for vehicles and/or equipment that cannot obtain a safe clearance from PVREA overhead facilities. De-energize procedures must be coordinated and approved by both PVREA Engineering and Operations Departments. Call or email PVREA with powerline de-energize inquiries. If the determined route requires PVREA assistance, a predetermined cost estimate for assistance must be paid in advance. At times it may not be possible to de-energize power lines.

4.7.7 **PVREA Safety Standby** – Always stay at least 10 feet away from PVREA overhead and/or underground powerlines, facilities, and communication cables. When necessary, PVREA Safety Standby personnel may be required when working or operating equipment in close proximity to PVREA (underground and/or overhead) facilities. PVREA Safety Standby personnel are responsible for monitoring the activities of the member/contractor working near the PVREA powerlines. Do not hesitate to call or email PVREA to inquire about PVREA Safety Standby personnel when working or operating equipment near PVREA powerlines.

In some cases, it may be necessary to add visual indicators or de-energize the powerlines near the work zone and/or operating equipment. All powerline de-energize procedures must be coordinated and approved by both PVREA Engineering and Operations Departments. Call or email PVREA with powerline de-energize or powerline indicator inquiries.

4.7.8 **PVREA Access** – PVREA requires 24/7 access to our powerlines and equipment. In the case of an emergency, inspections, and general maintenance, PVREA may need to enter the members' property to de-energize the lines or equipment without prior notification to the member.

PVREA reserves the right of access for ingress and egress over the lands of PVREA powerline easements, the adjoining lands to those easements, and the right to use the roads or trails, whether public, private, or dedicated, and the right to install, maintain and use gates, fences presently installed or as may be installed from time to time to access our powerlines and/or equipment. PVREA reserves the right to de-energize any service where access is denied.

4.7.9 **Generators** – Back feeding or paralleling a generator into the PVREA electrical system is dangerous and illegal. Back feeding or paralleling a personal generator into the PVREA grid shall not be allowed under any circumstance. In order to ensure the safety of our members, employees and the public, all member-owned generators that are connected to their electrical system must meet all NEC and NESC, AHJ, and PVREA requirements. Inquire with PVREA for member installed/owned generators.

4.7.9.1 PVREA allows Underwriters Laboratory (UL) approved meter socket transfer switches. The meter socket transfer switch must be approved by PVREA prior to installation. Contact the PVREA Operations Department to coordinate installation. A trip charge may be required for the installation. Removing the meter for installation of the switch without contacting PVREA is strictly prohibited and will result in additional fees and charges to the member/electrician. If the meter base requires upgrading to handle the new device PVREA will work with the member/electrician on the upgrade. There may be costs related to an upgrade.

4.8 Easements.

Depending on the scope of the project, new PVREA facility(s) construction will require a platted utility easement or PVREA easement. PVREA requires easements (overhead, underground) for the purposes of constructing, reconstructing, inspecting, upgrading, increasing voltage or line capacity, modifying, operating, repairing, maintaining, and extending from time to time an overhead and/or underground electric line or system, including without limitation any communications facilities, fiber optic facilities, broadband and broadband service facilities, wireless transmitters and receivers and phone line carrier equipment and other communication equipment of any kind, including without limitation above ground poles, towers, fixtures, guy wires, and structures, and above and below ground conductors, cables, wires, arrestors, footings, conduits, vaults, transformers, pads, and enclosures on, over or under the PVREA easement area. The creation and execution of required easements are part of the project. All required PVREA easements shall be finalized and complete prior to PVREA construction.

PVREA easements grant PVREA the right of access for ingress and egress over the lands above a described easement area and the adjoining lands, and the right to use the roads or trails, whether public, private, or dedicated, and the right to install, maintain and use gates and fences presently installed or as may be installed from time to time to access PVREA powerlines facilities, and equipment.

The Grantor of a PVREA easement shall not perform any act that will impair the structural integrity of, interfere with, or endanger the facilities or grant any other easement, right-of-way, permit, or license upon, under or over the PVREA easement area without the prior written consent of the PVREA, which consent shall not be unreasonably withheld.

The Grantor of the easement shall not construct or permit the construction of any temporary or permanent buildings, structures, including without limitation trailers or mobile homes, signs, or wells on, under, or over the easement area or that impair or impede the access of PVREA to our facilities. No objects shall be erected, placed, or permitted to remain on, under, or over the

easement area by the grantor, which will or may interfere with, impact, or endanger the PVREA's facilities installed on or in the easement area. The grantor of the easement shall not without the prior written approval of PVREA, which shall not be unreasonably withheld, build, create, construct, nor allow to be built, created, or constructed, any utilities, streets, curb and gutters, parking surfaces, trees, landscaping, fences, or similar improvements, permanent or temporary, nor allow the impoundment of water on, or modify the ground elevation of the easement area.

No PVREA easement amendment(s), modification(s) or supplement(s) of an easement shall be binding to PVREA unless made in writing and executed by an authorized representative of PVREA.

4.9 Energy Diversion.

Energy Diversion is an unauthorized connection to PVREA's electric facilities where electric service is being used and not metered (e.g. when the electric meter has been bypassed without a closed loop authorization from PVREA or tampering with PVREA equipment to cause the meter to not register energy consumption correctly).

Under no circumstances shall devices or attachments be connected to PVREA facilities in such a manner as to permit the use of unmetered energy except in emergencies where specifically authorized by PVREA. Legal recourse will be taken by PVREA against any person engaged in this activity.

Removal or "pulling" of a PVREA meter is not allowed and would be considered energy diversion. Contact PVREA to coordinate any work requiring the meter to be temporarily or permanently removed.

4.10 Member Owned Facilities.

Electrical equipment beyond the PVREA demarcation point is considered to be member-owned facilities. Member-owned facilities may consist of breakers, disconnects, conductors, conduits, etc. The maintenance, repairs, and upkeep of member-owned facilities is the sole responsibility of the member.

Power disruptions and outages due to damage and/or failure of member-owned facilities will not be considered an outage on the PVREA distribution system and therefore not investigated nor serviced by PVREA.

The member shall maintain their service in a safe operating condition in accordance to all applicable codes so that it does not constitute a hazard to them or to other members or persons. PVREA assumes no responsibility for inspection of members' lines and facilities and shall not be liable for injury to persons or damage to property when occurring on or caused by member-owned facilities.

Member-owned facilities may not be installed within the clear working space of any PVREA equipment. This includes, but is not limited to, PVREA metering equipment, CT/PT cabinets, service connection cabinets, transformers, switchgears, and meter sockets.

PVREA cannot guarantee the absolute reliability and power quality 100% of the time. Extreme weather, lightning strikes, force majeure, and other major events can cause problems within the distributions system. PVREA recommends that members with sensitive electronic and equipment susceptible to transients and/or loss of voltage install the proper equipment to protect their facilities.

4.11 Electricians and Contractors.

Anyone requiring information concerning fault current requirements pertaining to new construction, rewire or additional load may access *PVREA Transformer Fault Current Data* on PVREA's website or from the PVREA office. If this data supplied does not cover the Member's service contact the PVREA office.

The completion of a Large Load Inquiry Form and/or a Motor Data Request Form may be required depending on the requested service. Both the Large Load Inquiry Form and the Motor Data Request Form can be accessed on PVREA's website or from the PVREA office.

The Large Load Inquiry Form requires the submission of a one-line diagram that shows how the pieces of the member's system fit together. The one-line diagram should provide enough detail for PVREA Engineering to understand what the member's system is. Understanding the member's request, electrical system, its purpose allows PVREA to evaluate the impact of connecting a member's system to PVREA's distribution system.

The Large Load Inquiry Form requires the submission of an Electrical Load/Panel Schedule(s). Electrical load schedules or Panel Schedules describe the power which could be used by devices on the member's system.

The Motor Data Request Form requires the description of the member's proposed motor to be added to the system. Motors can be described in many ways. Common motor descriptions are size in horsepower, (HP) NEMA motor code, full load Amps, what the motor is being used for, and how the motor will be started and run. Much of this data can be found on the motor manufacturer nameplate.

4.12 Developers.

Large commercial, industrial developments, residential subdivisions, and multifamily complexes require the completion of a Subdivision Request Form. The Subdivision Request Form can be accessed on PVREA's website or at the PVREA office. For large scale projects or developments refer to section "Developments" for more information.

The purpose of the Subdivision Request form is to gather enough information for PVREA Engineering to better understand the project request. The information gathered in the form is necessary for PVREA Engineering to make accurate and informed decisions about the PVREA electrical system and the newly proposed electrical load.

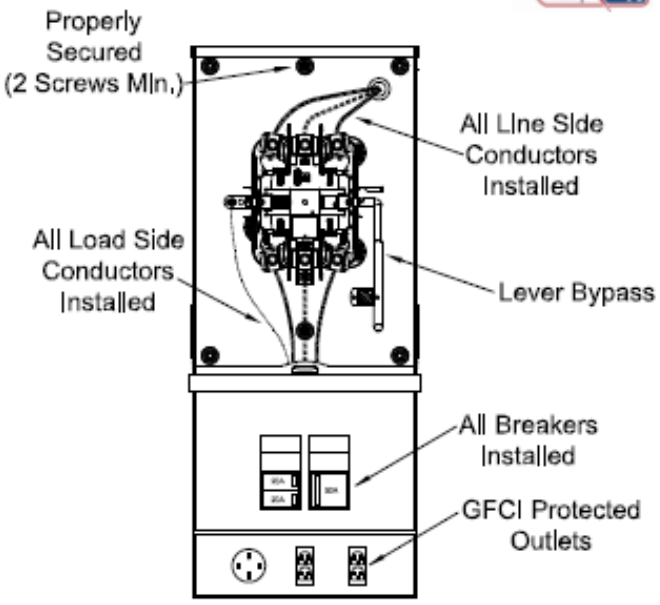
5 Character of Service Available

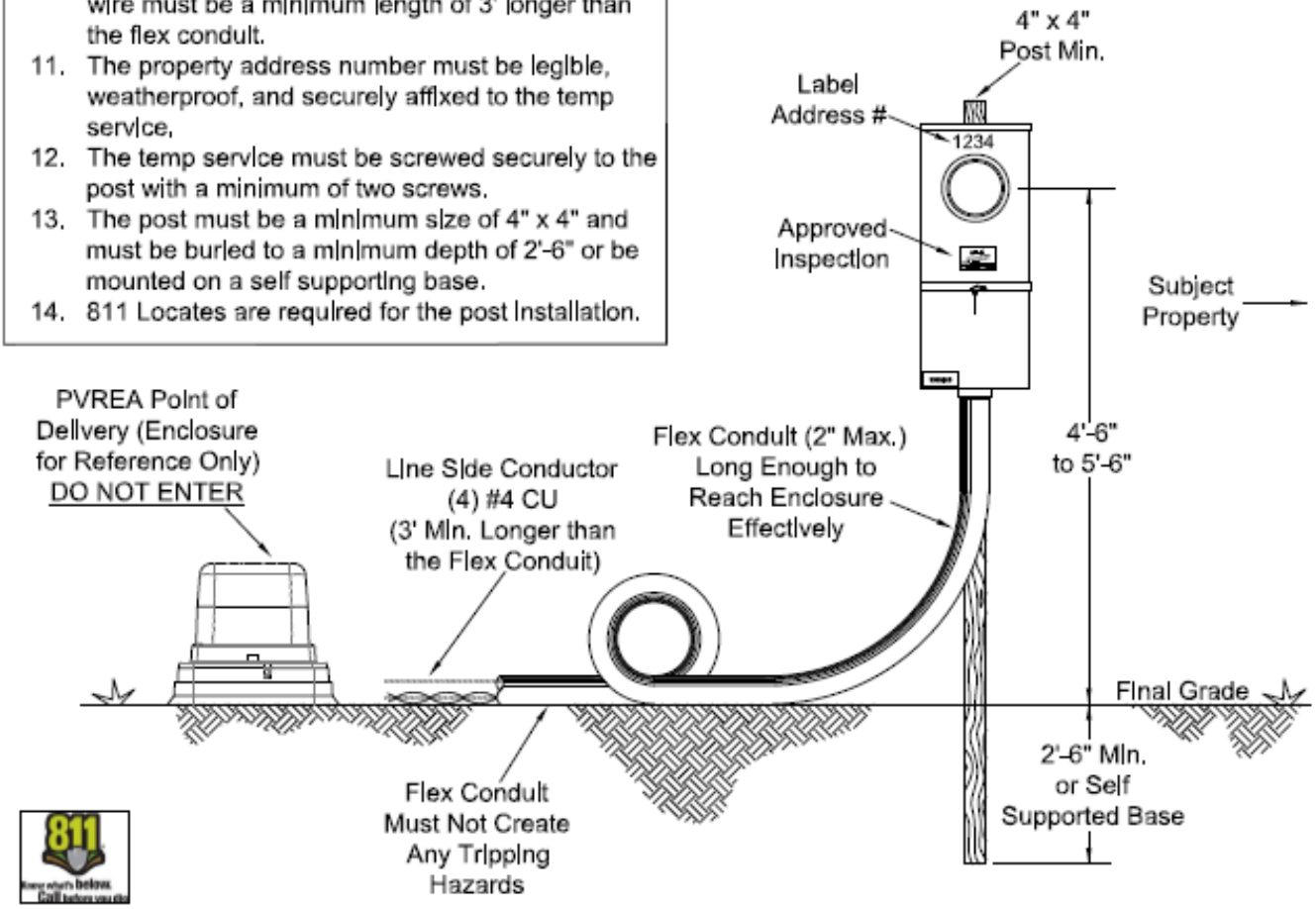
5.1 Single-Phase Underground.

5.1.1 **Single-Phase Underground, 120/240V, Temporary Construction Service.** - Overview Temporary Construction Service – If a temporary service is required, the member/builder shall install the temporary pedestal and contact the appropriate inspection agency or AHJ for inspection. Once approved, the inspecting agency will notify PVREA directly. After receiving the approved inspection, PVREA will set up an account and process deposits if necessary. PVREA will schedule the temporary construction service connection and set a meter. Meter sets are generally scheduled on Tuesdays or Fridays, depending on when the inspection is received.

NOTES:

1. All temp services must meet National Electric Code.
2. All temp services must be inspected and approved by the proper governing authority.
3. A PVREA account must be set up and active prior to the temp service being energized.
4. The temp service must be in good working order including the installation of all breakers and GFCI protected outlets.
5. All conductors (line and load), including the ground wire, must be installed.
6. The temp meter socket must have a lever bypass (no horn bypass).
7. The flex conduit must be 2" diameter or less and must be long enough to reach the nearest PVREA point of delivery (e.g., enclosure).
8. The flex conduit must reach the PVREA point of delivery without creating any tripping hazards.
9. The temp service must be located on the subject property address side of the PVREA point of delivery.
10. The line side conductor and #4 CU solid ground wire must be a minimum length of 3' longer than the flex conduit.
11. The property address number must be legible, weatherproof, and securely affixed to the temp service.
12. The temp service must be screwed securely to the post with a minimum of two screws.
13. The post must be a minimum size of 4" x 4" and must be buried to a minimum depth of 2'-6" or be mounted on a self supporting base.
14. 811 Locates are required for the post installation.





DESIGN LIMITS:

TEMPORARY CONSTRUCTION SERVICE INSTALLATION GUIDE

DATE: 03/20/2025	CHKD: RBP	APPVD: MO

POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

UK5.T

5.1.2 **Single-Phase, Underground, 120/240V, 200A Meter on House (MOH).** - Overview of the MOH process – When the member/contractor/electrician/builder is ready for permanent service the member/contractor/electrician/builder will be required to purchase a PVREA approved meter base from a local electrical supply store and install it on the side of the house in the PVREA approved location. For reference, the PVREA approved meter base is posted below. The MOH fee must be paid prior to trenching or connection. Once the meter base is installed, all fees paid, and the dig area is clear, PVREA will need to be contacted for a request to trench. PVREA's contractor will notify PVREA once the trench is complete.

The member/contractor/electrician/builder must notify the inspecting agency of your permanent inspection. This can be done independent of the trench request. Once the inspection release is received from the inspecting agency, all required paperwork and/or deposits have been received and processed, and the trench is complete, PVREA will schedule a crew to complete the permanent installation. The scheduling process can take up to ten days. Installations are done on Tuesdays and/or Fridays depending on when the final inspection is received. All meter installations will be done on Tuesdays and Fridays.

MILBANK
ENERGY AT WORK

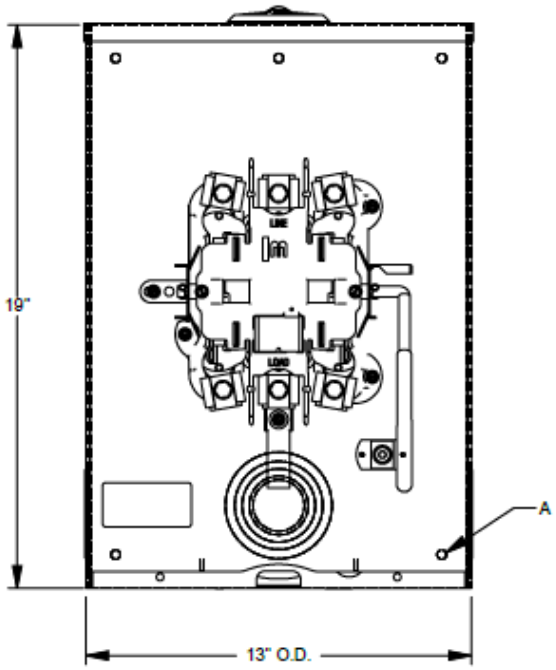
U4801-XL-5T9

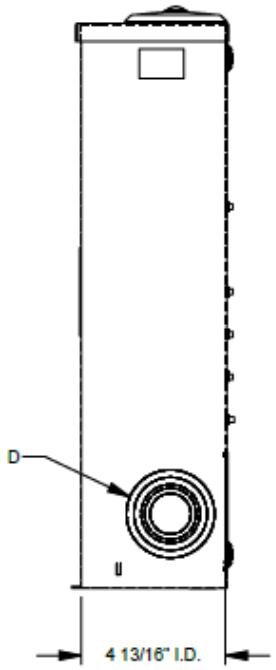
Catalog Number	U4801-XL-5T9
Marketing Product Description	5 Terminal Ringless Small Closing Plate Lever Bypass 5th Terminal 9 Oclock Position
UPC	784572288218
Length (IN)	4.844
Width (IN)	13
Height (IN)	19
Brand Name	Milbank
Type	Ringless Meter Socket
Application	Meter Socket
Standard	UL Listed;Type 3R
Voltage Rating	600 Volts Alternating Current
Amperage Rating	200 Continuous Ampere
Phase	1 Phase
Frequency Rating	60 Hertz
Size	4.844L x 13W x 19H
Number Of Cutouts	0
Cutout Size	No Main Breaker
Cable Entry	Overhead or Underground
Terminal	Lay in
Insulation	Glass Polyester
Mounting	Surface Mount

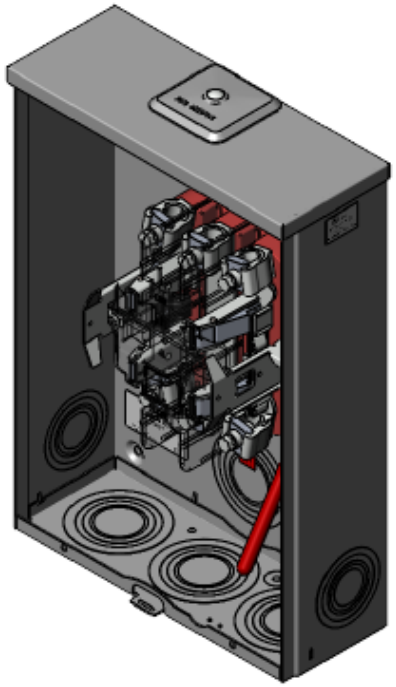
Enclosure	G90 Galvanized Steel with Powder Coat Finish
Jaw Quantity	5 Terminal
Bypass Type	Lever Bypass
Number of Meter Positions	1 Position
Equipment Ground	Bonded Ground Strap
Hub Opening	Small Closing Plate
Line Side Wire Range	6 AWG - 350 kcmil
Load Side Wire Range	6 AWG - 350 kcmil
Number Of Receptacles	0

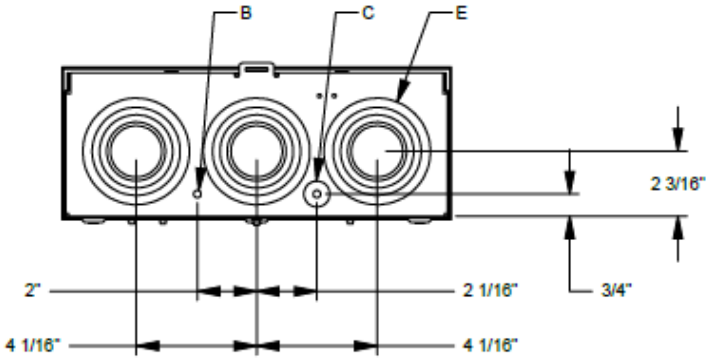
Please consult serving utility for their requirements prior to ordering or installing, as specifications and approvals vary by utility and may require local electrical inspector approval. All installations must be installed by a licensed electrician and must comply with all national and local codes, laws and regulations. Milbank reserves the right to make changes in specifications and features shown without notice or obligation.

FEATURE TABLE		
ITEM	QTY	DESCRIPTION
A	5	U/L MNTG.EMBOSS
B	1	¾ SOLID K.O.
C	1	¾, 1½ CONC. K.O.
D	2	1, 1¼, 1½, 2, 2½ CONC. K.O.
E	4	1¼, 1½, 2, 2½, 3 CONC. K.O.









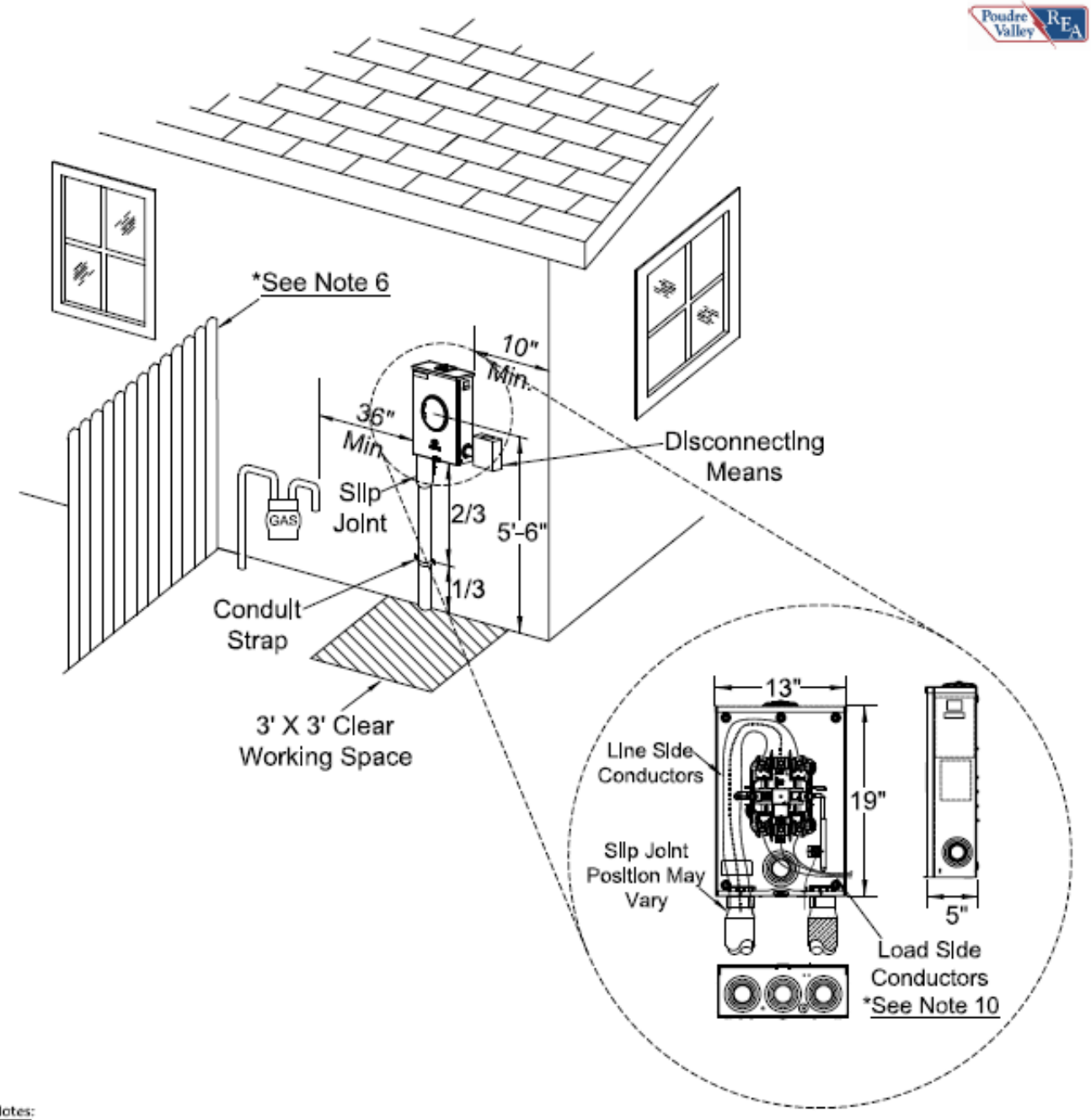
MILBANK
ENERGY AT WORK

All dimensions are +/- 1/16".
Drawing views are not to scale.

Version:

1

Please consult serving utility for their requirements prior to ordering or installing, as specifications and approvals vary by utility, and may require local electrical inspector approval. All installations must be installed by a licensed electrician and must comply with all national and local codes, laws and regulations. Milbank reserves the right to make changes in specifications and features shown without notice or obligation.

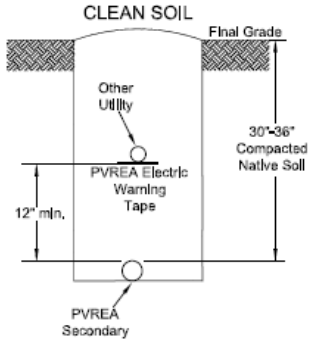


Notes:

1. Member to supply and install the Milbank U4801-XL-5T9 meter socket.
2. The meter assembly illustration is "Typical" and may vary depending on the installation circumstances.
3. Member to supply and install a disconnecting means beside the meter socket. Copper conductor is required for the connection between the load side of the meter and the Member's disconnecting means. Member conductors must be connected at the bottom of the meter socket.
4. The meter installation must meet all PVREA specifications and all NESC, NEC and, State and local rules and regulations.
5. PVREA to supply and install the Schedule 80 PVC riser, slip joint, lock nuts, and conduit straps.
6. The entire meter assembly shall be located in a readily accessible, unobstructed area and shall not be installed behind fences or in a secured area.
7. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter socket.
8. Member to supply and install ground wire and ground rod or ufer ground wire. The ground wire shall be continuous from the meter socket to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and attached to the building at 24" maximum intervals.
9. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
10. All member owned load side conductors must be free and clear of other components (e.g., lever bypass) within the meter socket.
11. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
12. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.
13. **REFERENCE PVREA 200A MOH INSTALLATIONS GUIDELINES FOR MORE INFORMATION.

DESIGN LIMITS:	200A, 1-PHASE, METER SOCKET, METER ON HOUSE	
DATE: 3/25/2025 | CHKD: RBP | APPVD: TER	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	UQ2.2

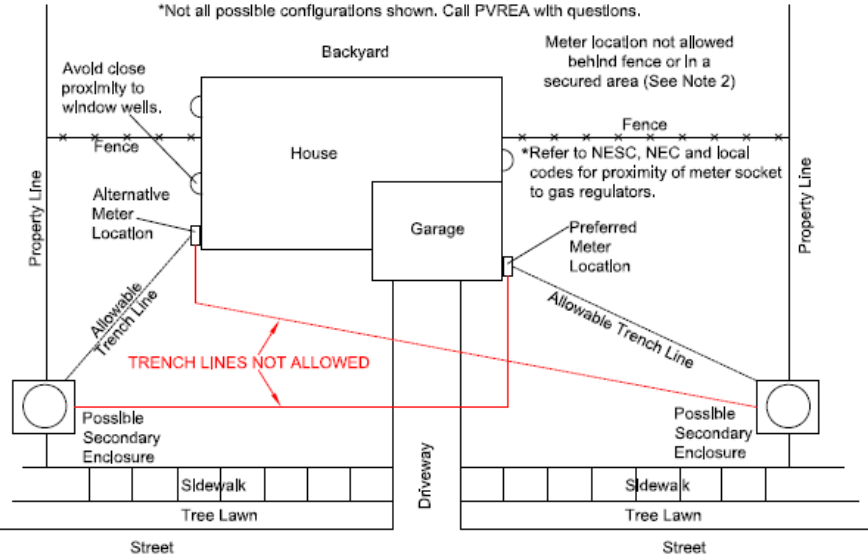
TRENCH SPECIFICATIONS - SECONDARY ONLY (UR2S)



NOTES:

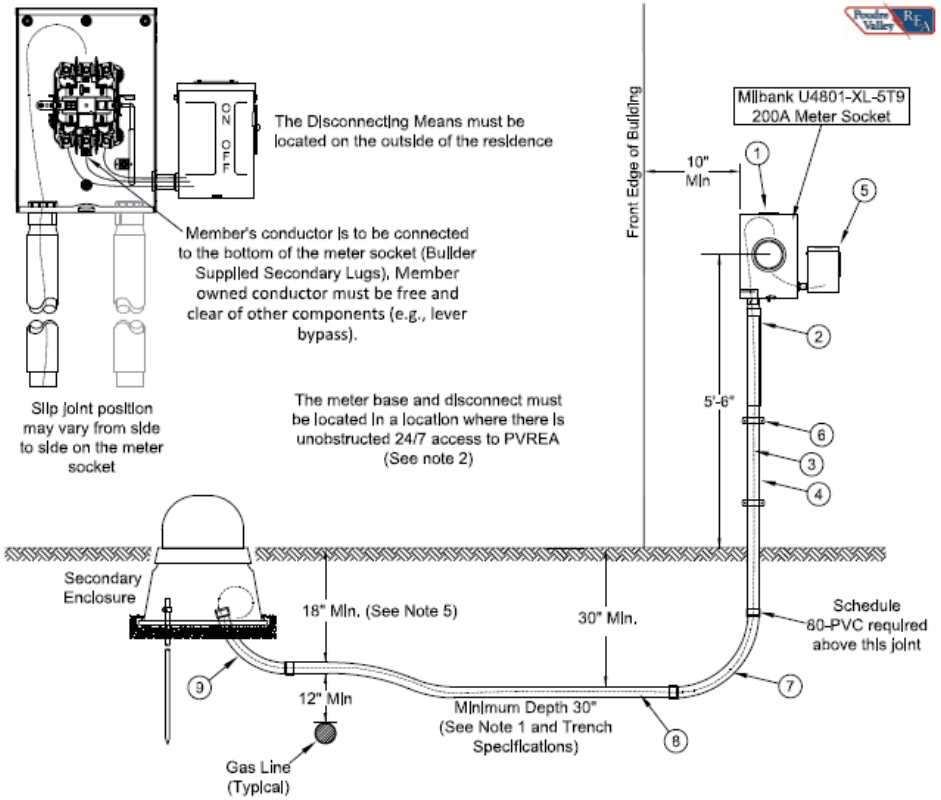
1) Compaction ≥ 80% done in lifts.
2) Depths specified are to finished grade.
3) Backfill must be free of rocks and debris.
4) Sand bedding may be required and will be specified by the Engineering Department.
5) Backfilling is a part of all trenching units including joint use. Warning tape is a part of all trenching units including joint use trenching.

TRENCH ROUTE OPTIONS & INSTALLATION NOTES



NOTES:

1) If grade changes occur after installation of the PVREA facilities, the builder/owner will be responsible for ensuring that the facilities are returned to the proper depth specifications.
2) Meter sockets shall be readily accessible. Meter sockets shall not be installed behind fences, the back of the house, or in secured areas. Meter sockets may be installed on walls of the house or garage, but not beyond fences or other secured areas.
3) PVREA will set a meter after the state inspection of the meter assembly has been approved and received by PVREA.
4) No trench shall cross the location of a proposed driveway or similar areas where trench settlement may have an adverse effect on cause significant damage or failure to the member's property.
5) If minimum depth and separation from any gas crossing is not possible, the conduit shall be installed under the gas line with a minimum separation of 12".
6) Refer all inquiries and questions to the PVREA Engineering Department at (970) 377-6650.



FURNISHED & INSTALLED MATERIALS

BUILDER INSTALLED EQUIPMENT

1. Millbank U4801-XL-5T9, 200A Meter Base (Builder Supplied)
5. Disconnect Switch (Builder Supplied)

PVREA INSTALLED EQUIPMENT (VIA CONTRACTOR)

2. Slip joint with bushing locknuts
3. Service conductor 4/0 Triplex
4. 2" Conduit, PVC-Schedule 80
6. 2" conduit straps and screws as required
7. 36" long, 18" radius PVC sweep
8. 2" conduit, PVC-Schedule 40 or Schedule 80
9. Sweep into secondary enclosure
10. Each end of conductor marked for identification

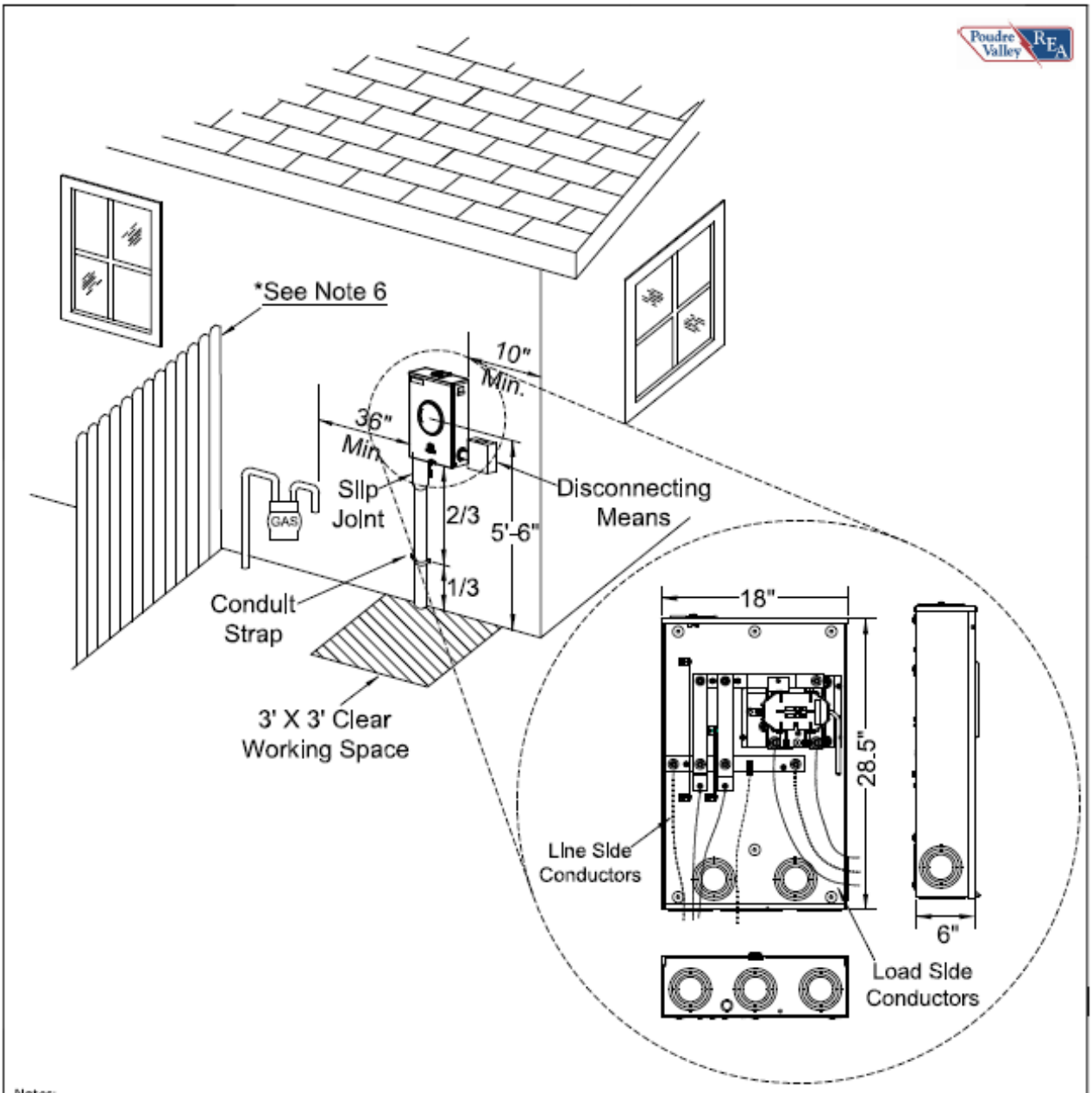
DESIGN LIMITS:

(11"x17" print preferred for this document)

200A, 1-PHASE, METER SOCKET, METER ON HOUSE, INSTALLATION GUIDELINES

DATE: 3/25/25	CHKD: RBP	APPVD: MO	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	MOH-200A

5.1.3 **Single-Phase, Underground, 120/240V, 320A Meter on House (MOH).**

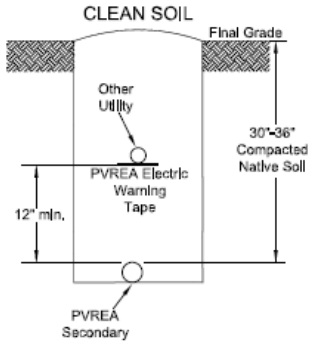


Notes:

1. PVREA to supply and meber to install the meter socket.
2. The meter assembly illustration is "Typical" and may vary depending on the installation circumstances.
3. Member to supply and install a disconnecting means beside the meter socket. Copper conductor is required for the connection between the load side of the meter and the Member's disconnecting means. Member conductors must be connected at the bottom of the meter socket.
4. The meter installation must meet all PVREA specifications and all NESC, NEC and, State and local rules and regulations.
5. PVREA to supply and install the Schedule 80 PVC riser, slip joint, lock nuts, and conduit straps.
6. The entire meter assembly shall be located in a readily accessible, unobstructed area and shall not be installed behind fences or in a secured area.
7. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter socket.
8. Member to supply and install ground wire and ground rod or ufer ground wire. The ground wire shall be continuous from the meter socket to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and attached to the building at 24" maximum intervals.
9. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
10. All member owned load side conductorx must be free and clear of other components (e.g., lever bypass) inside the meter socket.
11. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
12. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.
13. **REFERENCE PVREA 320A MOH INSTALLATIONS GUIDELINES FOR MORE INFORMATION.

DESIGN LIMITS:	320A METER ON HOUSE, 1-PHASE, UNDERGROUND ASSEMBLY	
DATE: 3/25/2025 / CHKD: RBP / APPVD: TER	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	UQ2.3

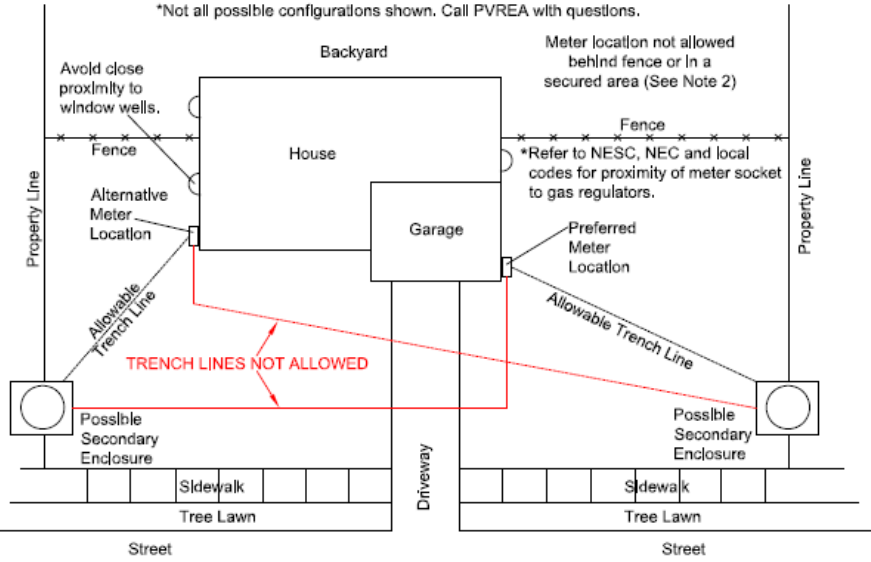
TRENCH SPECIFICATIONS - SECONDARY ONLY (UR2S)



NOTES:

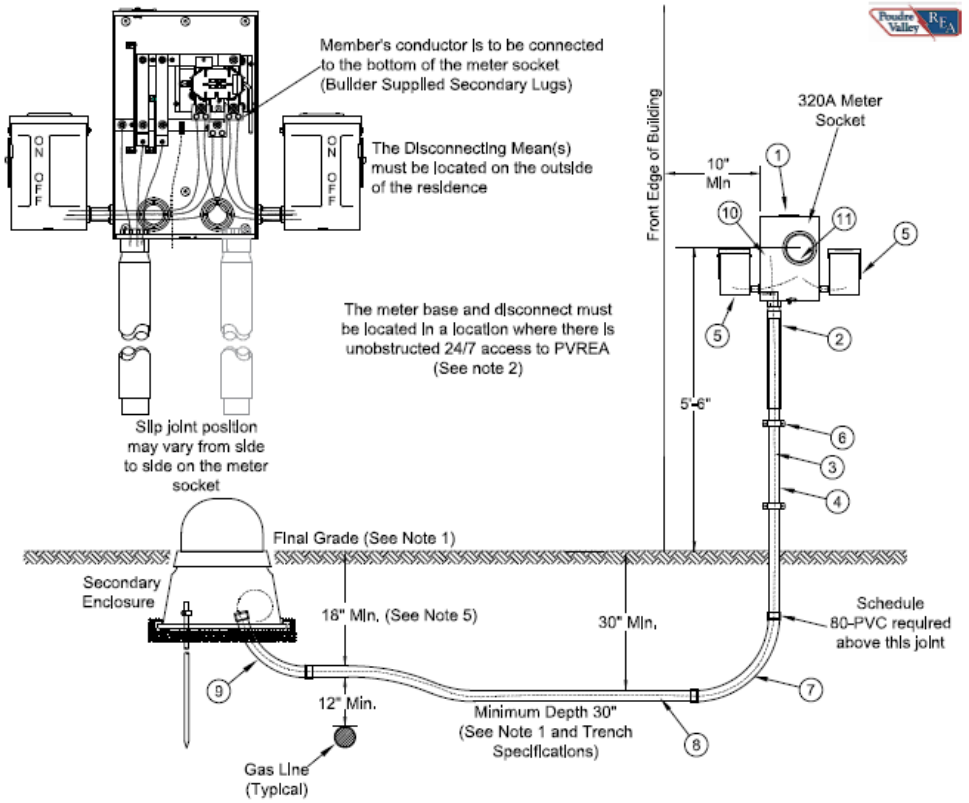
1) Compaction ≥ 80% done in lifts.
2) Depths specified are to finished grade.
3) Backfill must be free of rocks and debris.
4) Sand bedding may be required and will be specified by the Engineering Department.
5) Backfilling is a part of all trenching units including joint use. Warning tape is a part of all trenching units including joint use trenching.

TRENCH ROUTE OPTIONS & INSTALLATION NOTES



NOTES:

1) If grade changes occur after installation of the PVREA facilities, the builder/owner will be responsible for ensuring that the facilities are returned to the proper depth specifications.
2) Meter sockets shall be readily accessible. Meter sockets shall not be installed behind fences, the back of the house, or in secured areas. Meter sockets may be installed on walls of the house or garage, but not beyond fences or other secured areas.
3) PVREA will set a meter after the state inspection of the meter assembly has been approved and received by PVREA.
4) No trench shall cross the location of a proposed driveway or similar areas where trench settlement may have an adverse effect on cause significant damage or failure to the member's property.
5) If minimum depth and separation from any gas crossing is not possible, the conduit shall be installed under the gas line with a minimum separation of 12".
6) Refer all inquiries and questions to the PVREA Engineering Department at (970) 377-6650.



FURNISHED & INSTALLED MATERIALS

BUILDER INSTALLED EQUIPMENT

1. 320A Meter Base (PVREA Supplied)
5. Disconnect Switch(s) - (2) 200A or (1) 320A (Builder Supplied)
11. Secondary lugs (Builder Supplied)

PVREA INSTALLED EQUIPMENT (VIA CONTRACTOR)

2. Slip joint with bushing locknuts
3. Service conductor 350MCM Triplex
4. 3" Conduit, PVC-Schedule 80
6. 3" conduit straps and screws as required
7. 36" long, 18" radius PVC sweep
8. 3" conduit, PVC-Schedule 40 or Schedule 80
9. Sweep into secondary enclosure
10. Each end of conductor marked for identification

DESIGN LIMITS:

(11"x17" print preferred for this document)

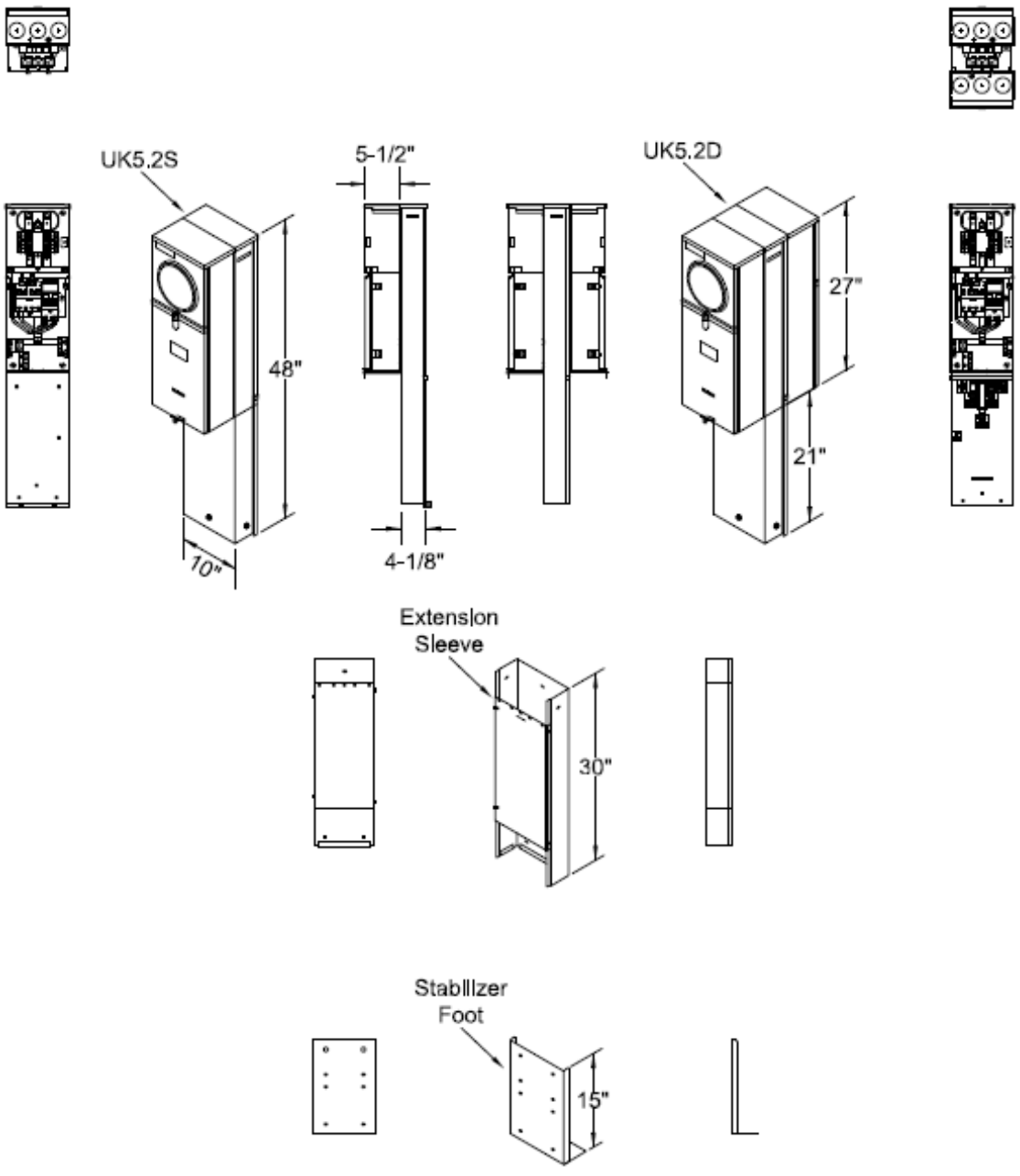
320A, 1-PHASE, METER SOCKET, METER ON HOUSE, INSTALLATION GUIDELINES

DATE: 3/25/2025	CHKD: RBP	APPVD: MO

POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

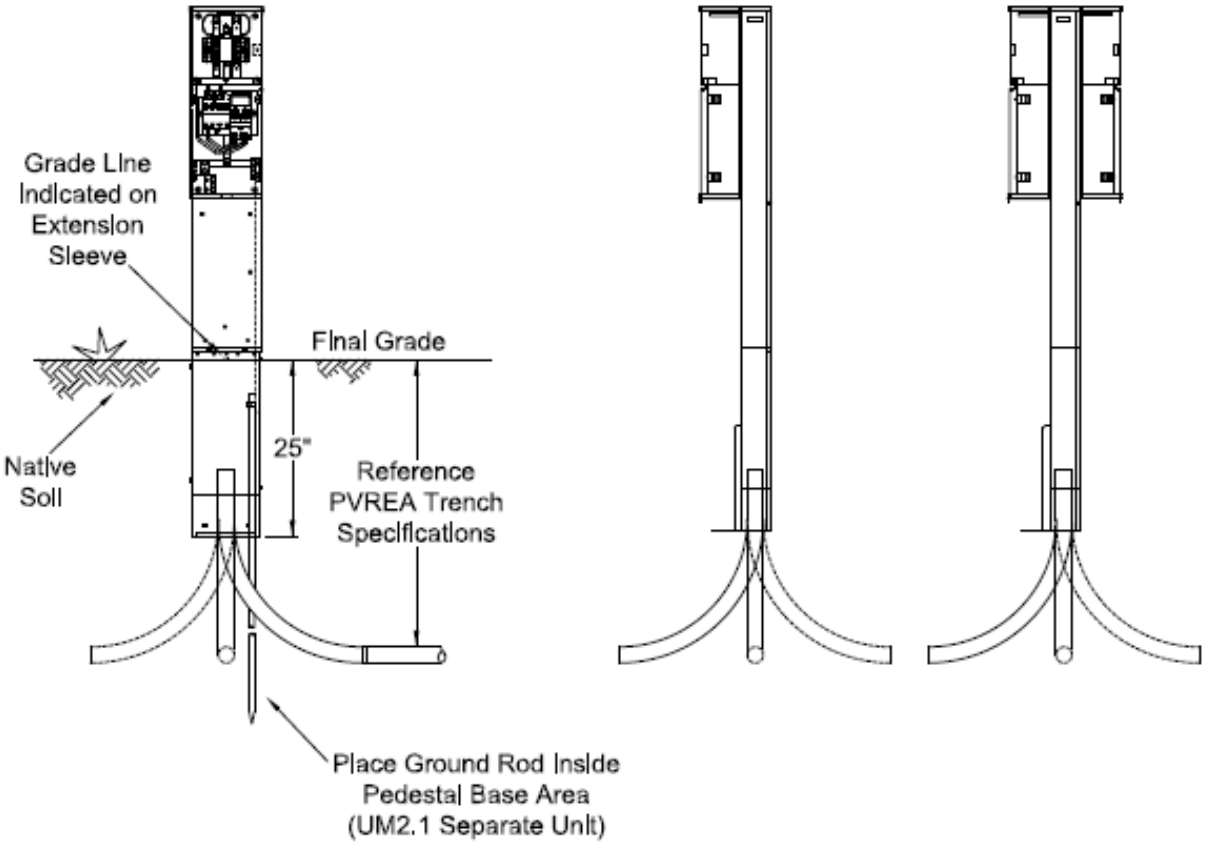
MOH-320A

5.1.4 **Single-Phase, Underground, 120/240V, 200A Single or Double Pedestal.**



UNIT	DESCRIPTION	MATERIAL	QTY	CODE
UK5.2S	PEDESTAL, SINGLE METER, 200A, 1-PHASE	PEDESTAL, 200 AMP SINGLE	1	3960
UK5.2D	PEDESTAL, DOUBLE METER, 200A, 1-PHASE	PEDESTAL, 200 AMP DOUBLE	1	3975

DESIGN LIMITS:			PEDESTAL, SINGLE OR DOUBLE METER, 200A, 1-PHASE	
DATE: 3/25/2025	CHKD: RBP	APPVD: TER	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	UK5.2S UK5.2D



Notes:

1. The pedestal installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
2. Reference PVREA Trench Specifications (UR2A, UR2A-Rock, UR2A-3, UR2S) for conduit depth requirements.
3. Compaction ≥ 80% around pedestal.
4. Backfill must be free of rocks and debris.
5. Sand bedding may be required and will be specified by the Engineering Department.
6. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter pedestal.
7. When possible, face single meter towards street. Face double meter parallel to the street.
8. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
9. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
10. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.

UNIT	DESCRIPTION	MATERIAL	QTY	CODE
UK5.2S	PEDESTAL, SINGLE METER, 200A, 1-PHASE	PEDESTAL, 200 AMP SINGLE	1	3960
UK5.2D	PEDESTAL, DOUBLE METER, 200A, 1-PHASE	PEDESTAL, 200 AMP DOUBLE	1	3975

DESIGN LIMITS:

200A

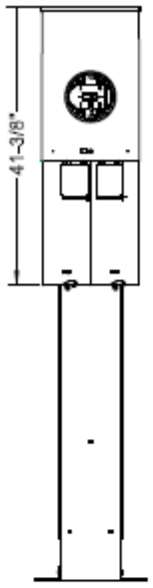
PEDESTAL, SINGLE OR DOUBLE METER, 200A, 1-PHASE

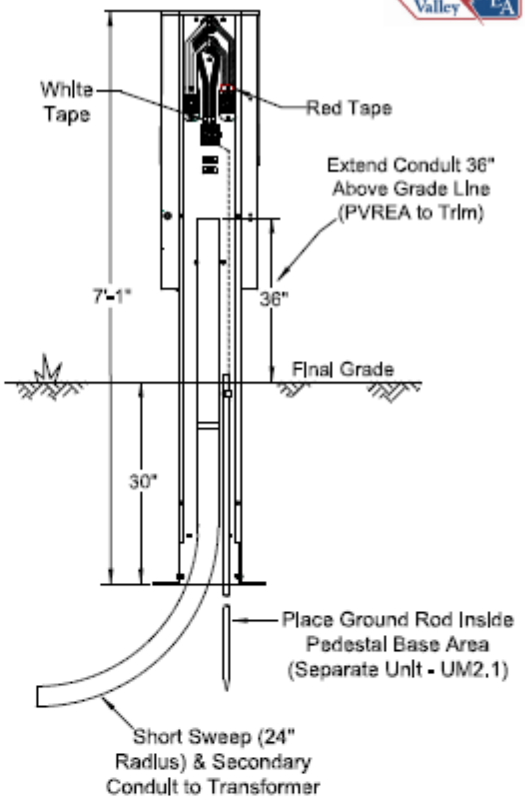
DATE: 3/25/2025 | CHKD: RBP | APPVD: TER

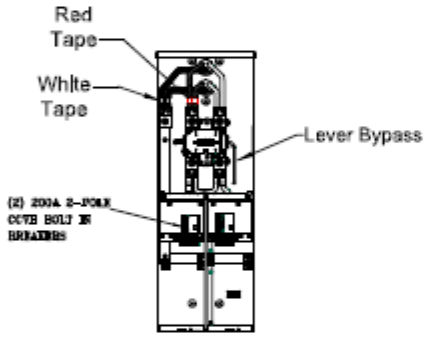
POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

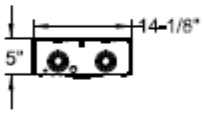
UK5.2S
UK5.2D

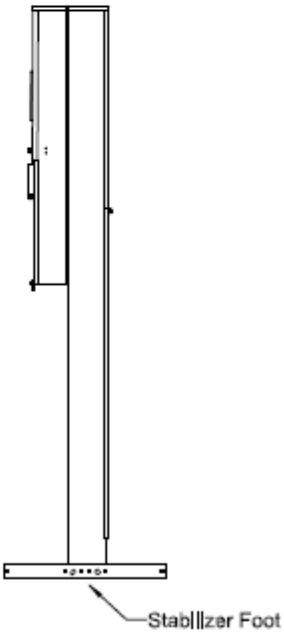
5.1.5 **Single-Phase, Underground, 120/240V, 320A Pedestal.**











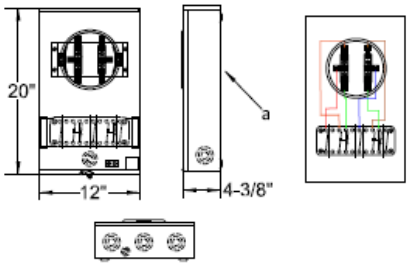
Notes:

1. (2) 200A Breakers - Cutler Hammer CCVH2200 Type.
2. The pedestal installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
3. Reference PVREA Trench Specifications (UR2A, UR2A-Rock, UR2A-3, UR2S) for conduit depth requirements.
4. Compaction ≥ 80% around pedestal.
5. Backfill must be free of rocks and debris.
6. Sand bedding may be required and will be specified by the Engineering Department.
7. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter pedestal.
8. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
9. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
10. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.

ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Pedestal, 320/400 AMP	1	3955				

DESIGN LIMITS: 320A Continuous	120/240V PEDESTAL, 1-PHASE, 320A, SINGLE METER	
DATE: 3/25/2025 CHKD: RBP APPVD: TER	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	UK5.3S

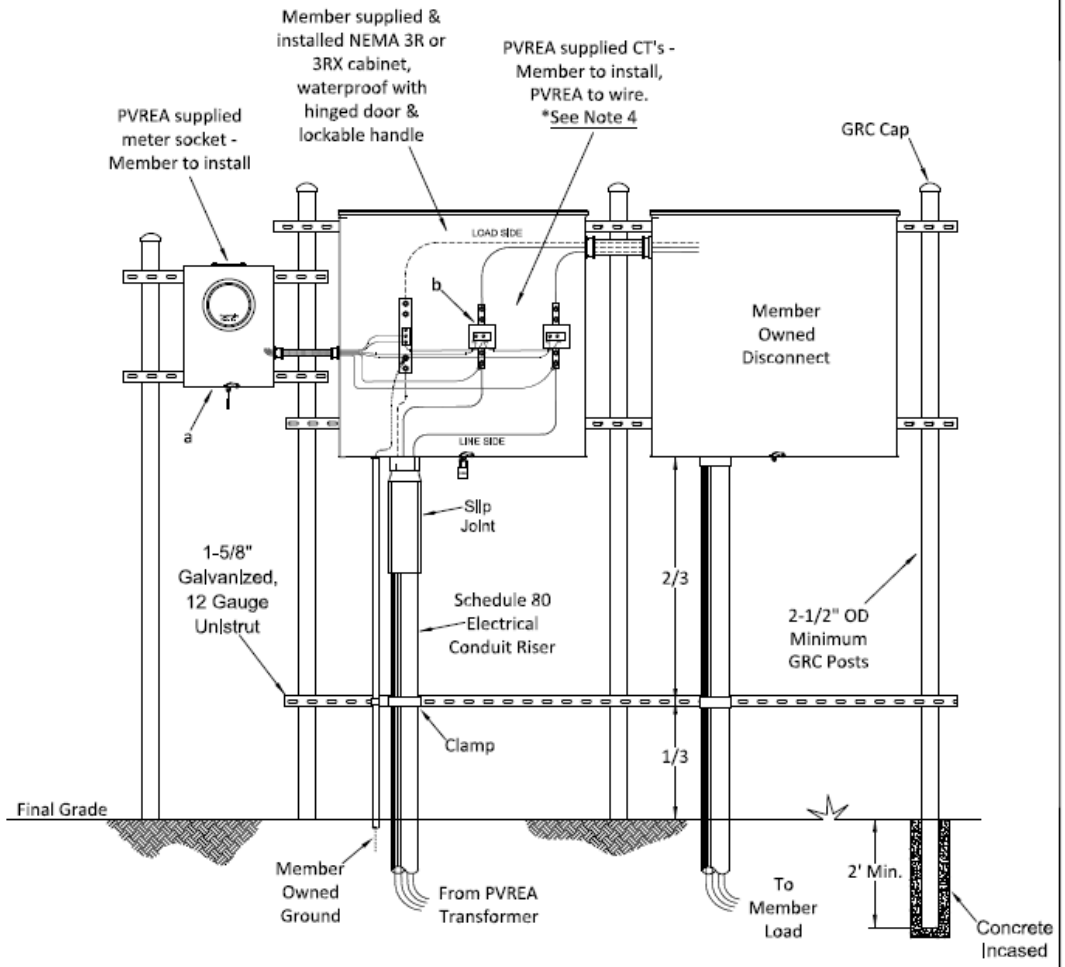
5.1.6 Single-Phase, Underground, 120/240V, 400A to 600A, Instrument rated metering with CT's, mounted on a rack or a building.



Notes:

1. 600A maximum for this meter configuration.
2. This meter assembly installation may be installed on a building without supporting posts.
3. The meter assembly illustration is "Typical" and may vary depending on the installation circumstances.
4. PVREA to supply, Member to install CT's. PVREA to wire CT's. CT polarity dot to face line side.
5. All CT installations must be approved by PVREA Engineering.
6. The number of conduits and service conductors may vary depending on the size of the service. Refer to *Poudre Valley REA Member Owned Secondary Service Conductor Specifications and Installation Guidelines* for installation standards.
7. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
8. The member owned disconnect shall be located within 10' of the PVREA meter socket.
9. The entire meter assembly shall be located in a readily accessible, unobstructed area and shall not be installed behind fences or in a secured area.
10. There shall be a minimum of a 3' clear working space area in front and to the sides of the meter assembly.
11. Member to supply and install ground wire and ground rod or ufer ground wire. The ground wire shall be continuous from the meter assembly to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and attached.
12. All clearances must meet PVREA specifications and all NESC, NEC, and State and Local rules and regulations.
13. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
14. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.

TYPICAL 1Ø CT METER ASSEMBLY INSTALLATION

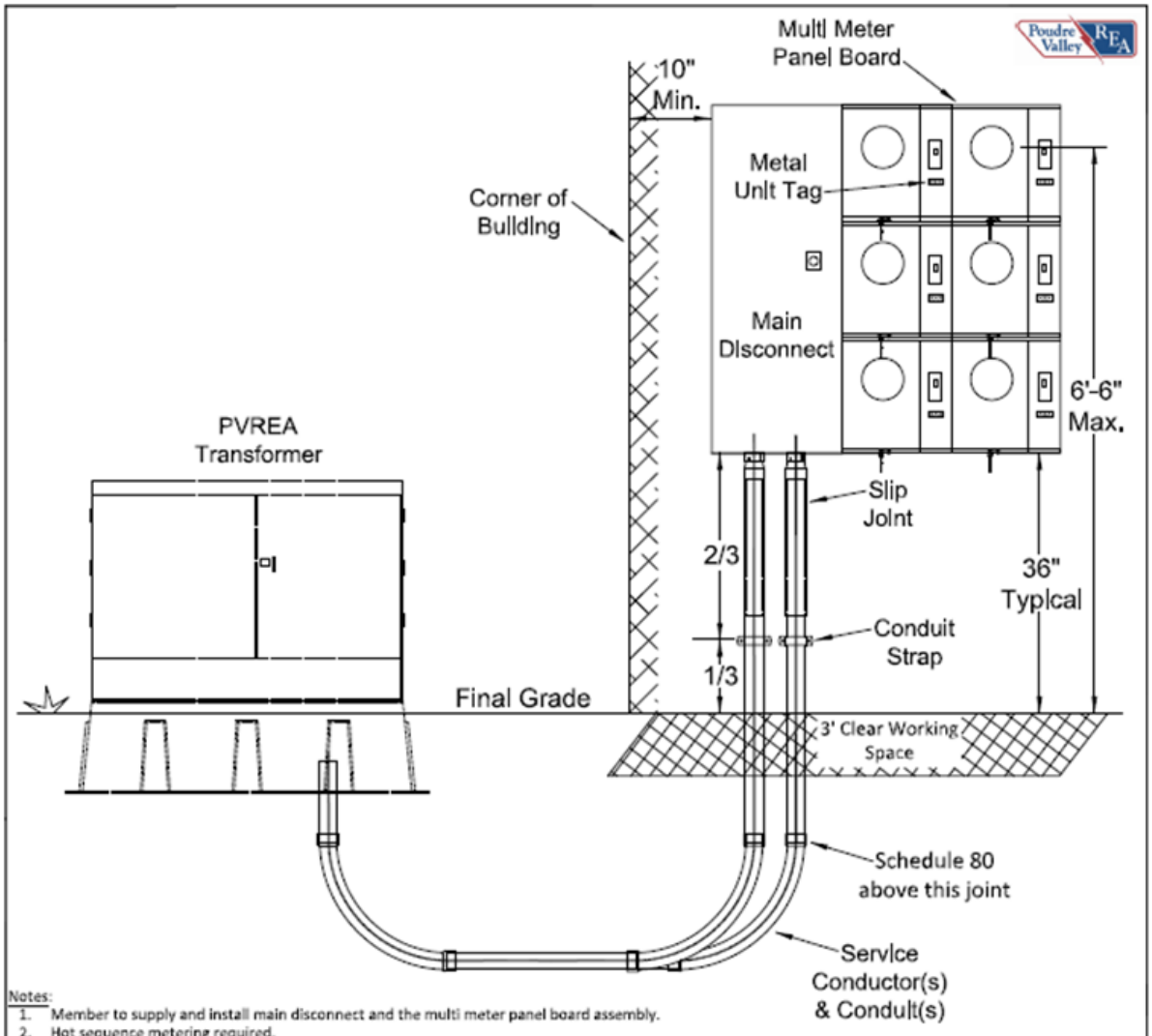


ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Socket, 6 Terminal Prewired w/ Test	1	6085	b	CT's – Bar Type (Ratio Varies)	2	CTS43XXX

DESIGN LIMITS: 1-Phase, 120/240V, Maximum 600A	METER ASSEMBLY, CT, 1-PHASE, 6T, 120/240V	
DATE: 3/25/2025 / CHKD: RBP / APPVD: TER	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	UQ2.6

5.1.7 **Single-Phase, Underground, 120/240V or 120/208V, 200A gang metering on a building.**

5.1.7.1 Gang metering requires the member to install their own secondary/service conductors and conduits from the PVREA transformer to member's service. Refer to "Member Owned Secondary and Service Conductors" for specific installation details.



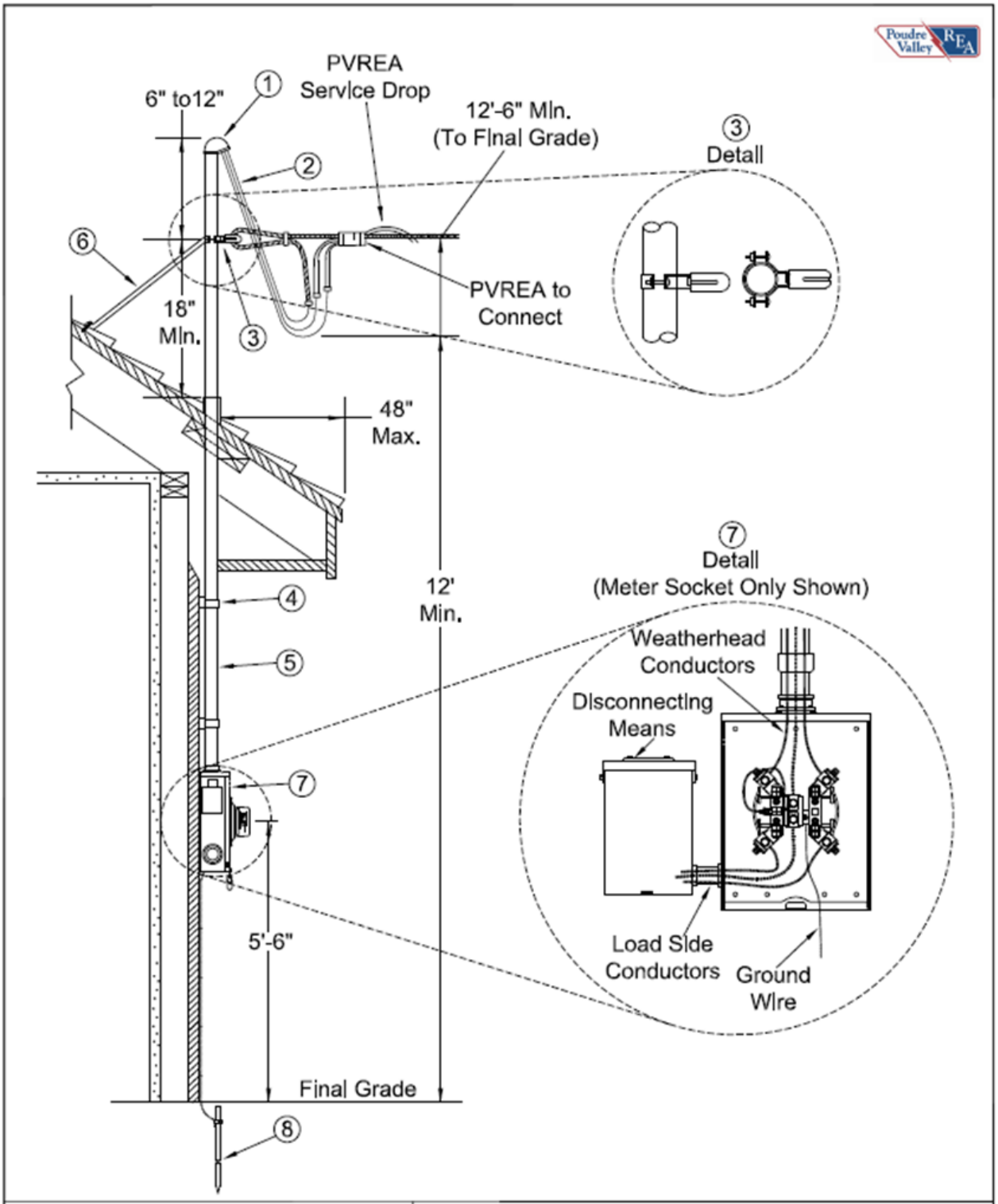
Notes:

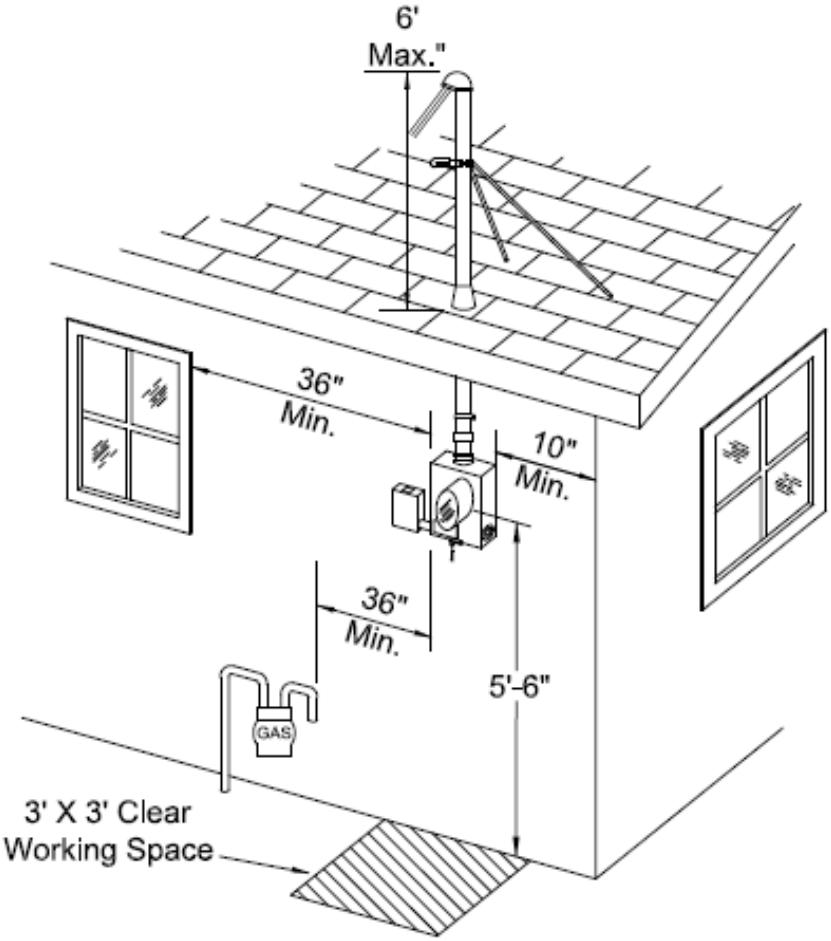
1. Member to supply and install main disconnect and the multi meter panel board assembly.
2. Hot sequence metering required.
3. Each individual meter socket must have a protected (fuse/breaker) disconnecting means.
4. Each individual meter socket must be labeled with an engraved or stamped metal tag, riveted to the panel denoting the corresponding unit. Tag to be installed on the breaker side of the panel. The Member/Electrician must be onsite during meter sets to verify breaker and unit coordinate.
5. All meter sockets must be equipped with a lever by-pass switch (No Horn By-passes).
6. The meter assembly illustration is "Typical" and may vary depending on the installation circumstances.
7. Member to supply and install all service conduit(s) and conductor(s). The Member is responsible for all service conductor terminations (Transformer & Meter) as well as phase rotation. The number of conduits and service conductors may vary depending on the size of the service. Refer to *Poudre Valley REA Member Owned Secondary Service Conductor Specifications and Installation Guidelines* for installation standards.
8. For Ampere Interrupting Capacity (AIC) ratings refer to PVREA website, www.pvrea.coop.
9. Member to supply and install meter service riser(s), strap(s), slip joint(s), and locknut(s). The riser must be schedule 80 electrical conduit.
10. The entire meter assembly shall be located in a readily accessible, unobstructed area, and shall not be installed behind fences or in a secured area.
11. Working clearances in front and to the sides of the meter assembly must meet all NEC and NESC requirements.
12. Member to supply and install ground wire and ground rod or ufer ground wire. The ground wire shall be continuous from the meter socket to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and attached to the building at 24" maximum intervals.
13. All clearances (e.g., gas, windows, window wells) must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
14. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and, State and local rules and regulations.
15. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
16. PVREA will set a meter(s) after the installation has been inspected and received by PVREA from the proper jurisdictional authority.

DESIGN LIMITS: 120/240V or 120/208V	200A METER ON BUILDING, 1-PHASE, GANG METER ASSEMBLY	
DATE: 3/25/2025 | CHKD: RBP | APPVD: TER	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	UQ2.5

5.2 Single-Phase Overhead.

5.2.1 Single-Phase, Overhead, 120/240V, 200A, Roof Mast Assembly.





Notes:

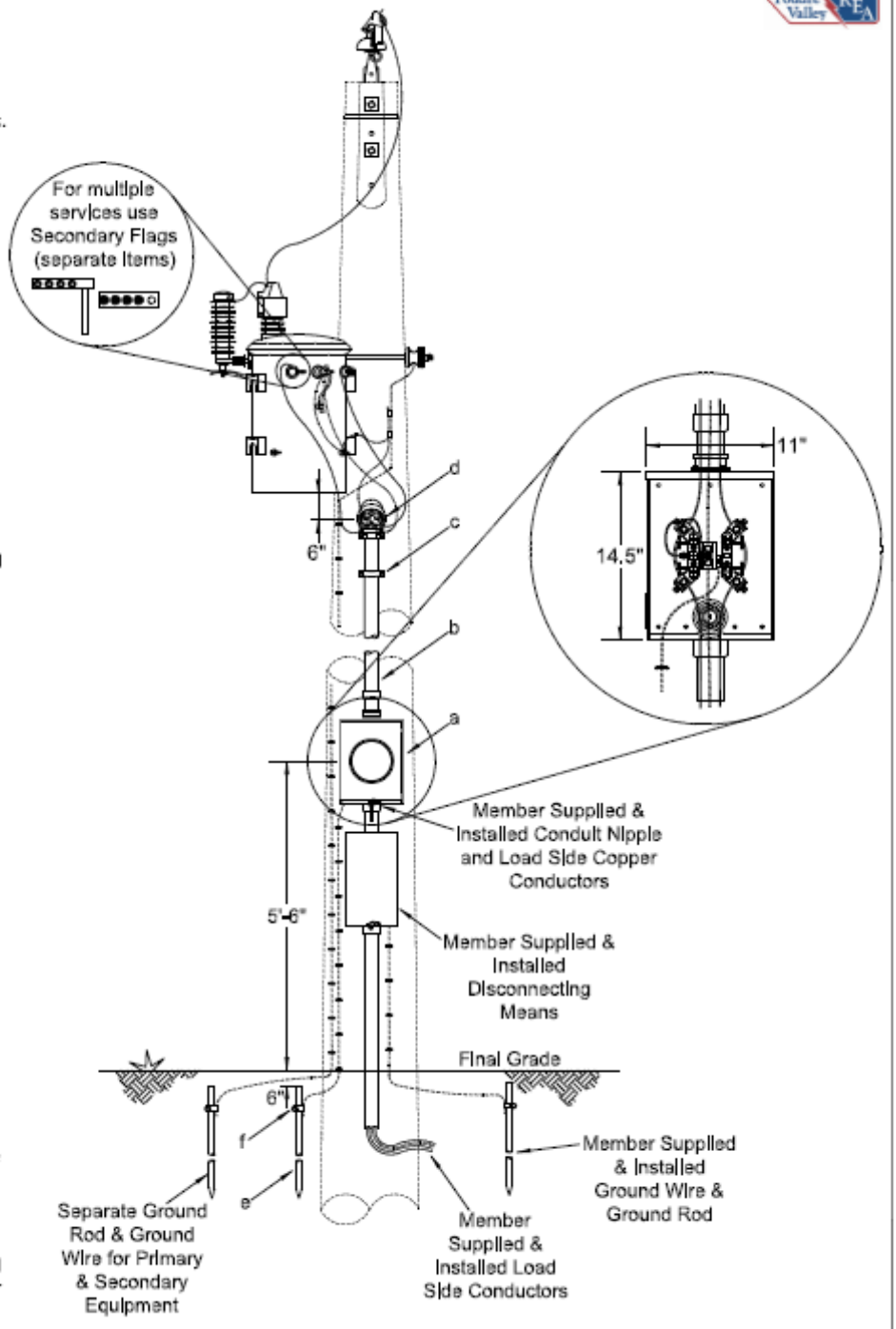
1. Weatherhead to be supplied and installed by the Member.
2. Weatherhead service conductors to be supplied and installed by the Member.
   - 2.1. Weatherhead phase conductors to be (2) 3/0 stranded, insulated copper.
   - 2.2. Neutral conductor to be #2 stranded, insulated copper. The neutral conductor must be tagged on each end with white or grey electrical tape or have white, grey, or white striped insulation.
   - 2.3. Weatherhead service conductor to be connected on line side (PVREA) of the meter socket.
   - 2.4. Weatherhead service conductor tails must be a minimum of 18".
3. Insulated service wire holder to be supplied and installed by the Member.
4. Heavy conduit strap(s) secured to the building to be supplied and installed by the Member (not to exceed 5' apart).
5. Service mast to be supplied and installed by the Member.
   - 5.1. The service mast to be 2" rigid steel conduit or IMC. Plastic, PVC or EMT shall not be used.
   - 5.2. No couplings are permitted in the mast above the highest brace.
6. Back bracing is required if the mast distance between the roof line and the service wire holder is greater than 50".
   - 6.1. Masts that require back bracing shall be braced against the pull of the PVREA service drop conductors. Back bracing shall consist of two steel members installed at approximately a 90 degree spread. Minimum size braces shall be 3/4" rigid galvanized steel pipe or equivalent.
   - 6.2. Mast length above the roof line must not exceed 6'.
7. PVREA to provide, Member to install a 200A Meter Socket Only or a 200A Meter/Main Combination.
   - 7.1. The meter installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
   - 7.2. On a Meter Socket Only installation the Member is to supply and install a disconnectng means beside (right or left) the meter socket. Copper conductor is recommended for the connection between the load side of the meter and the Member's disconnecting means.
   - 7.3. The disconnecting means must be visible from and within 10' of the PVREA meter socket.
   - 7.4. A 200A breaker is supplied with the 200-amp Meter/Main Combination.
   - 7.5. 100A meter sockets are for retirement purposes only and cannot be used for new or upgraded services.
   - 7.6. The meter socket and disconnecting means shall be located in a readily accessible, unobstructed area and shall not be installed behind fences or on the back of the house in a secured area.
   - 7.7. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter socket.
8. Member to supply and install ground wire and ground rod or ufer ground wire. The ground wire shall be continuous from the meter socket to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and attached to the building at 24" maximum intervals.
9. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
10. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
11. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.

DESIGN LIMITS:	100A / 200A METER ON HOUSE - OVERHEAD ROOF ASSEMBLY	
Q1.1 (100A) For Retirement Purposes Only.		
DATE: 3/25/2025 | CHKD: RBP | APPVD: TER	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	Q1.1 Q1.2

5.2.2 Single-Phase, Overhead, 120/240V, 200A Meter (socket only) on Pole (MOP).

Notes:

1. This configuration is only good for Member owned and installed underground services.
2. "Down and Up" overhead services are not permitted on primary poles.
3. 200A Meter Socket to be supplied and installed by PVREA.
4. 100A (Q2.1) meter sockets are for retirement purposes only and cannot be used for new or upgraded services.
5. Weatherhead and weatherhead service conductors to be supplied and installed by PVREA.
6. Member to supply and install a disconnecting means on load side of meter socket.
7. The member owned disconnecting means must be visible and within 10' of the PVREA meter socket.
8. Member owned equipment on an MOP is strictly limited to one half of the pole, to allow for up to two services per pole.
9. Copper conductor is recommended for the connection between the load side of the meter and the Member's disconnecting means.
10. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
11. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter socket.
12. Member to supply and install Member owned ground wire and ground rod. The ground wire shall be continuous from the disconnecting means to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and stapled to the pole at 24" maximum intervals.
13. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
14. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
15. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.



ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Meter Loop, 200 Amp, Pole XX Footage as required	1	383X	d	Service Entrance Head 2"	1	5295
b	Conduit, 2" Sched 40 PVC x length as required	XX	2400	e	Rod, Ground 5/8" x 8', 13 Mil Copper	1	5190
c	Pipe Strap, 2", as required	X	4155	f	Clamp, Ground 5/8"	1	2010

DESIGN LIMITS:

Q2.1 (100A) For Retirement Purposes Only.

METER LOOP, 1-PHASE, 100A OR 200A SOCKET ONLY, METER ON POLE

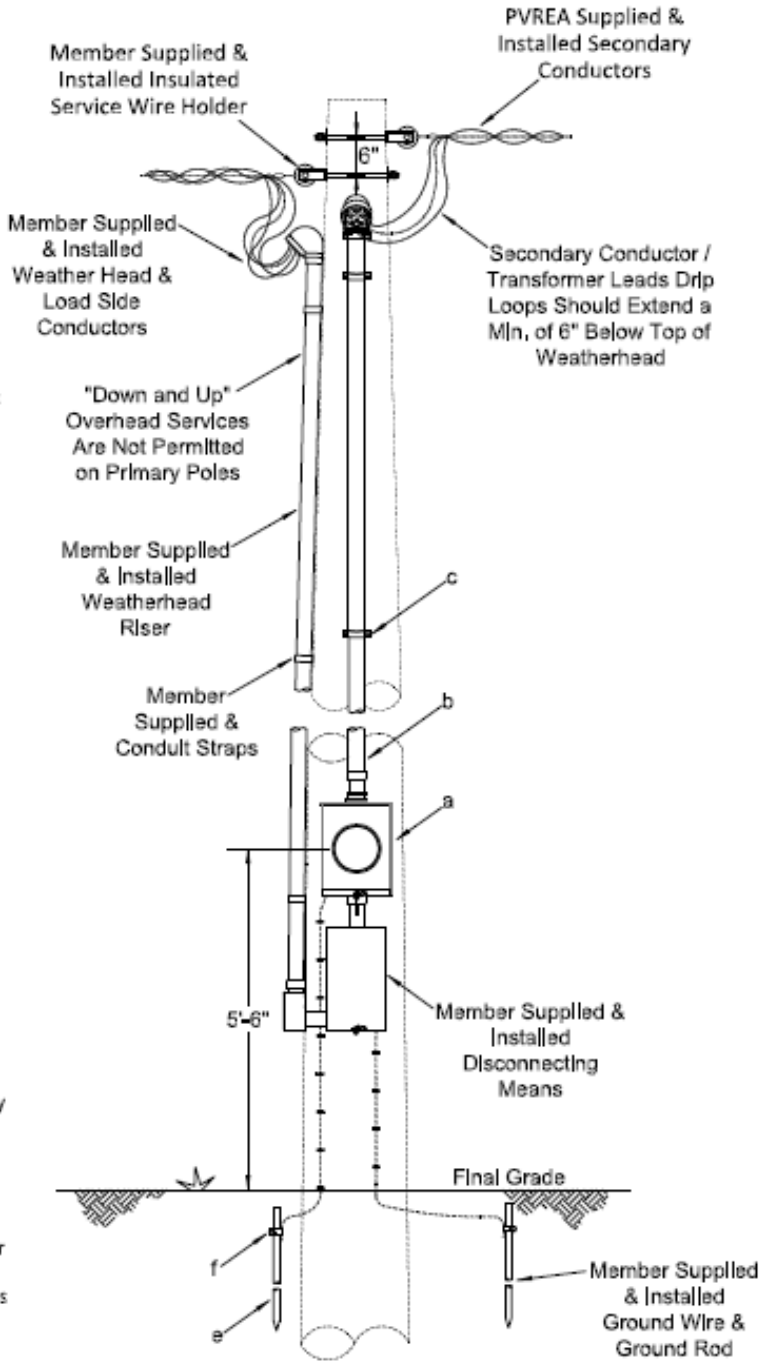
DATE: 3/25/2025	CHKD: RBP	APPVD: TER

POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

Q2.1
Q2.2.XX

Notes:

1. This configuration is good for Member owned and installed overhead "Down and Up" or underground services.
2. "Down and Up" overhead services are not permitted on primary poles.
3. 200A Meter Socket to be supplied and installed by PVREA.
4. 100A (Q2.1) meter sockets are for retirement purposes only and cannot be used for new or upgraded services.
5. Member side weatherhead and weatherhead service conductors to be supplied and installed by Member.
6. Member to supply and install conduit straps on Member owned weatherhead riser. Maximum distance between straps not to exceed 5'.
7. Member to supply and install a disconnecting means on load side of meter socket.
8. The member owned disconnecting means must be visible and within 10' of the PVREA meter socket.
9. Member owned equipment on an MOP is strictly limited to one half of the pole, to allow for up to two services per pole.
10. Copper conductor is recommended for the connection between the load side of the meter and the Member's disconnecting means and within the Member owned weatherhead riser.
11. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
12. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter socket.
13. Member to supply and install Member owned ground wire and ground rod. The ground wire shall be continuous from the disconnecting means to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and stapled to the pole at 24" maximum intervals.
14. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
15. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
16. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.



ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Meter Loop, 200 Amp, Pole XX Footage as required	1	383X	d	Service Entrance Head 2"	1	5295
b	Conduit, 2" Sched 40 PVC x length as required	XX	2400	e	Rod, Ground 5/8" x 8', 13 Mil Copper	1	5190
c	Pipe Strap, 2", as required	X	4155	f	Clamp, Ground 5/8"	1	2010

DESIGN LIMITS:

Q2.1 (100A) For Retirement Purposes Only.

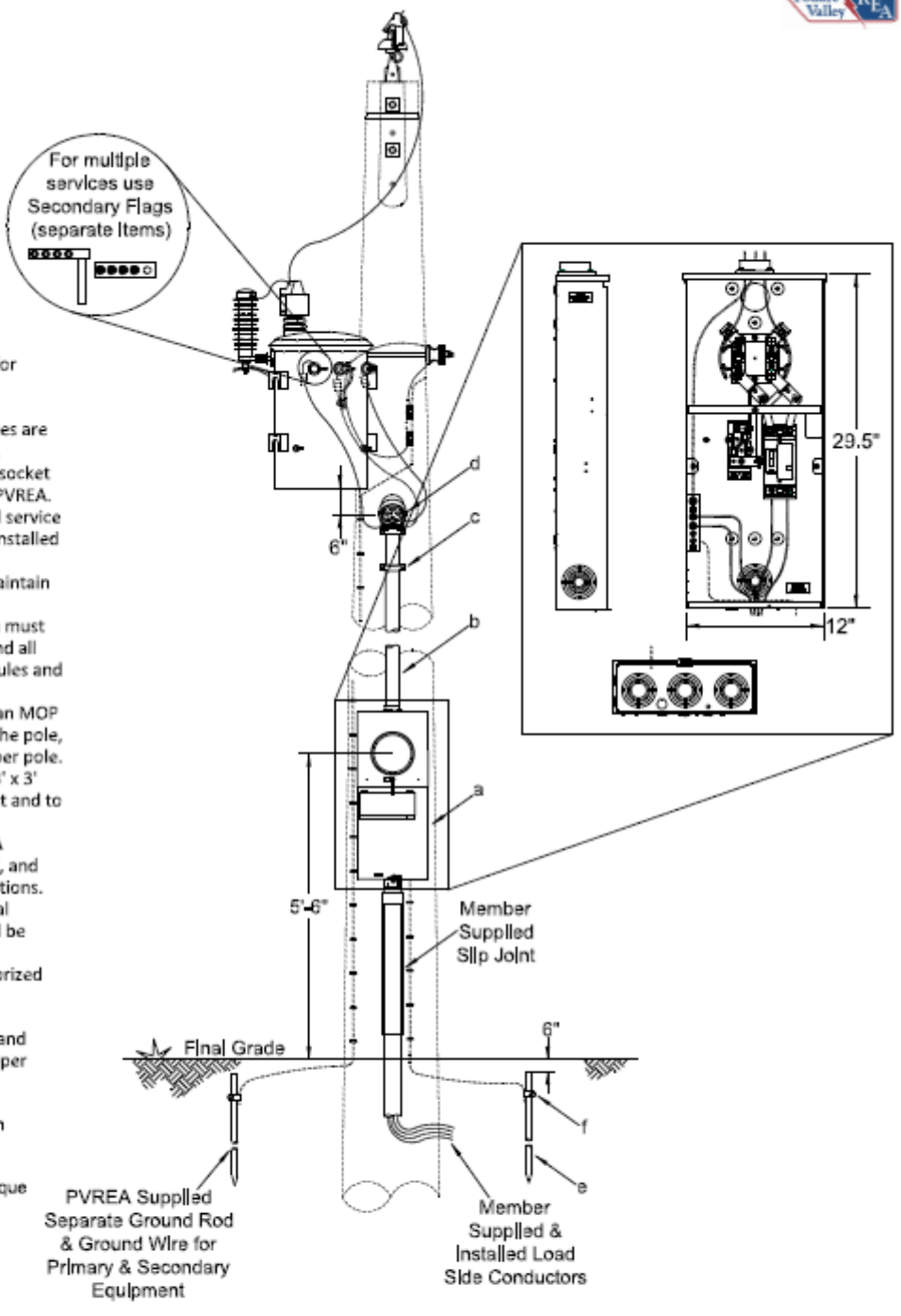
METER LOOP, 1-PHASE, 100A OR 200A SOCKET ONLY, METER ON POLE

DATE: 3/25/2025	CHKD: RBP	APPVD: TER

POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

Q2.1
Q2.2.XX

5.2.3 Single-Phase, Overhead, 120/240V, 200A Meter Main, Meter on Pole (MOP).



Notes:

1. This configuration is only good for Member owned and installed underground services.
2. "Down and Up" overhead services are not permitted on primary poles.
3. 200A Meter/Main combination socket to be supplied and installed by PVREA.
4. Weatherhead and weatherhead service conductors to be supplied and installed by PVREA.
5. The Member owns and must maintain the load side breaker.
6. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
7. Member owned equipment on an MOP is strictly limited to one half of the pole, to allow for up to two services per pole.
8. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter socket.
9. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
10. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
11. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.
12. **CAUTION** Over tightening of secondary terminals may result in equipment damage. Secondary terminals should be tightened in accordance with the following torque requirements:

Eye Bolt Size	Torque
3/8-16	15-17 ft-lb
1/2-13	32-35 ft-lb

ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Meter Loop, 200 Amp, MM Footage as required	1	38XX	d	Service Entrance Head 2"	1	5295
b	Conduit, 2" Sched 40 PVC x length as required	XX	2400	e	Rod, Ground 5/8" x 8', 13 Mil Copper	1	5190
c	Pipe Strap, 2", as required	X	4155	f	Clamp, Ground 5/8"	1	2010

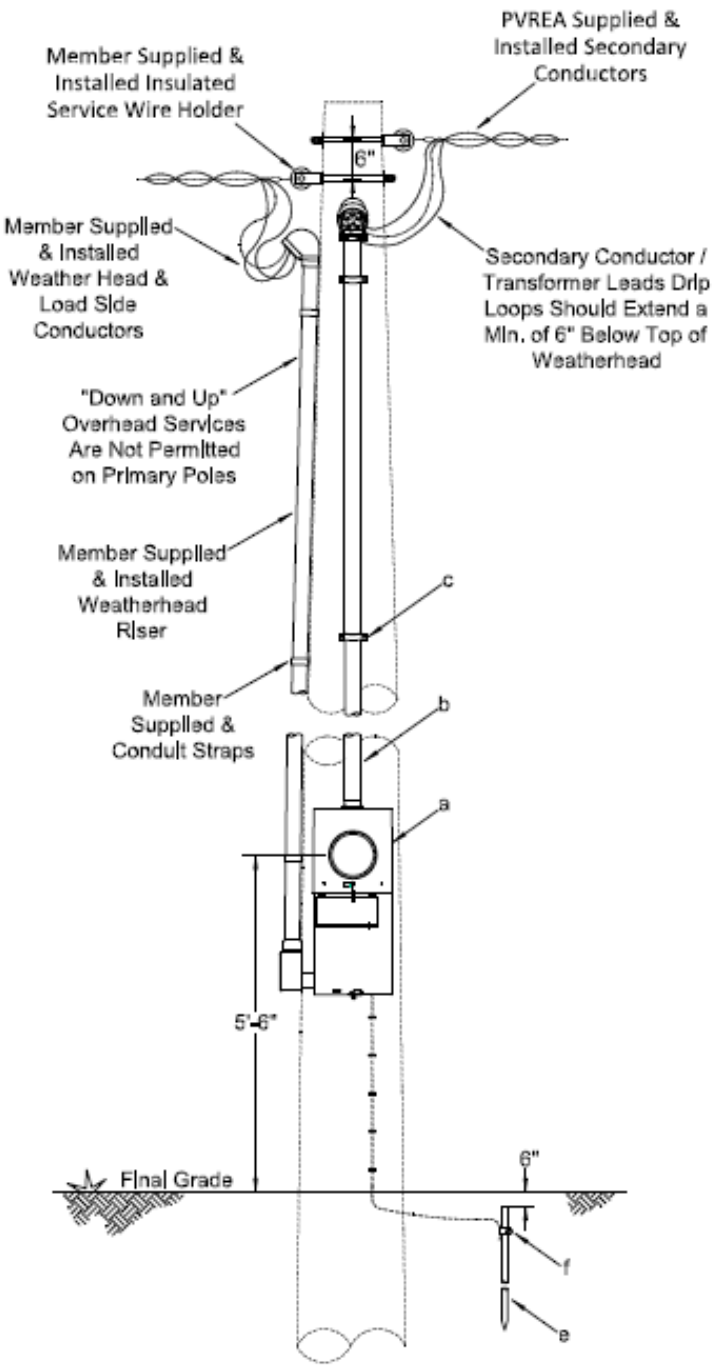
DESIGN LIMITS:

METER LOOP, 1-PHASE, 200A METER / MAIN COMBINATION, METER ON POLE

DATE: 3/25/2025 | CHKD: RBP | APPVD: TER

POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

Q2.2MM.XX



Notes:

1. This configuration is good for Member owned and installed overhead "Down and Up" or underground services.
2. "Down and Up" overhead services are not permitted on primary poles.
3. 200A Meter/Main combination socket to be supplied and installed by PVREA.
4. Member side weatherhead and weatherhead service conductors to be supplied and installed by Member.
5. The Member owns and must maintain the load side breaker.
6. Member to supply and install conduit straps on Member owned weatherhead riser. Maximum distance between straps not to exceed 5'.
7. Member owned equipment on an MOP is strictly limited to one side of the pole, to allow for up to two services per pole.The meter assembly installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
8. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter socket.
9. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
10. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
11. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.

ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Meter Loop, 200 Amp, MM Footage as required	1	38XX	d	Service Entrance Head 2"	1	5295
b	Conduit, 2" Sched 40 PVC x length as required	XX	2400	e	Rod, Ground 5/8" x 8', 13 Mil Copper	1	5190
c	Pipe Strap, 2", as required	X	4155	f	Clamp, Ground 5/8"	1	2010

DESIGN LIMITS:

METER LOOP, 1-PHASE, 200A METER / MAIN COMBINATION, METER ON POLE

DATE: 3/25/2025 | CHKD: RBP | APPVD: TER

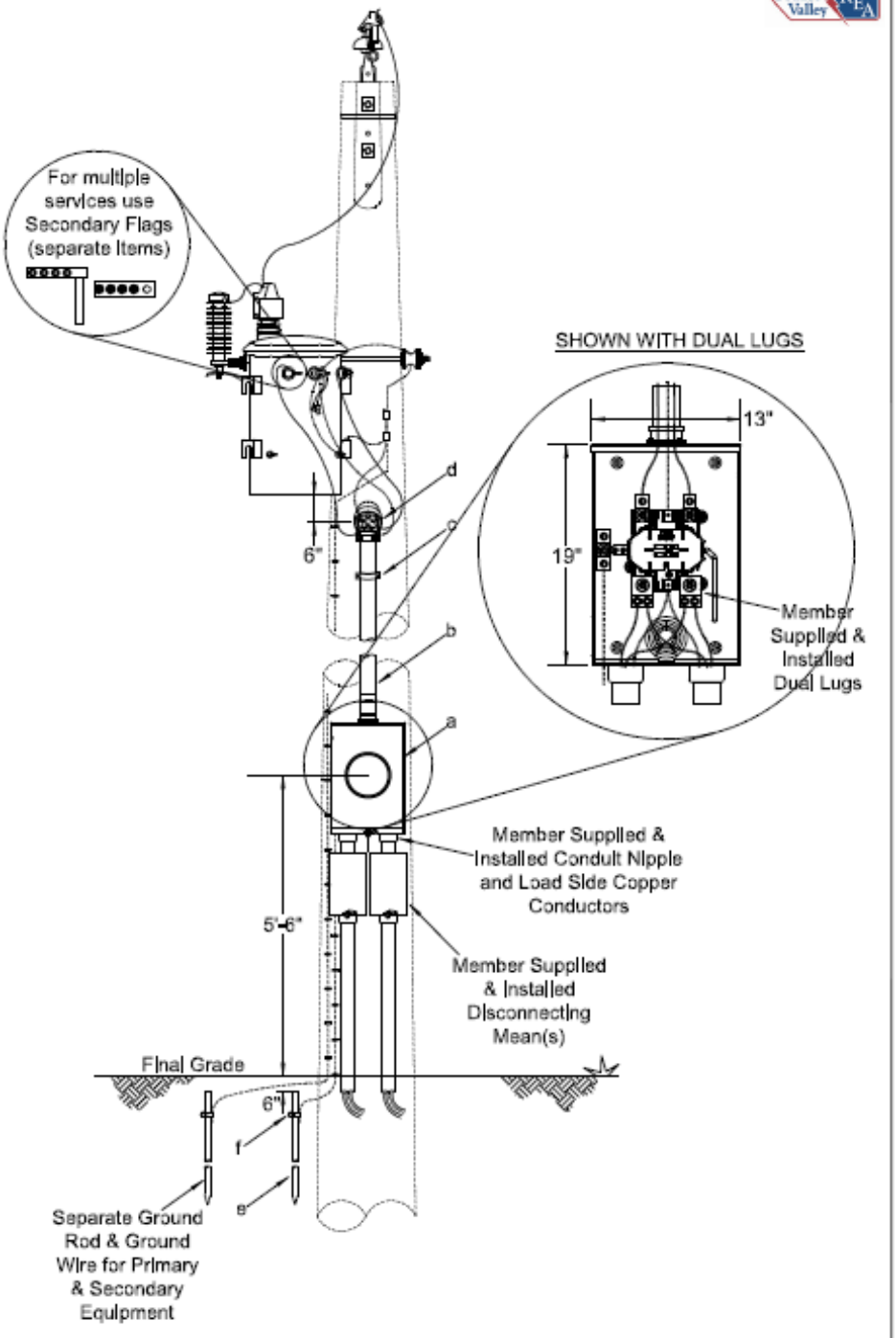
POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

Q2.2MM.XX

5.2.4 Single-Phase, Overhead, 120/240V, 320A Meter (socket only) on Pole (MOP).

Notes:

1. This configuration is only good for member owned and installed underground services.
2. "Down and Up" overhead services are not permitted on primary poles.
3. 320A Meter Socket to be supplied and installed by PVREA.
4. Weatherhead and weatherhead service conductors to be supplied and installed by PVREA.
5. Member to supply and install dual lugs and disconnecting mean(s) on load side of meter socket.
6. The member owned disconnecting means must be visible and within 10' of the PVREA meter socket.
7. Copper conductor is required for the connection between the load side of the meter and the Member's disconnecting means.
8. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and state and local rules and regulations.
9. Member owned equipment shall be strictly limited to one side of the pole, to allow for up to two services per pole.
10. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter socket.
11. Member to supply and install member owned ground wire and ground rod. The ground wire shall be continuous from the disconnecting means to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and stapled to the pole at 24" maximum intervals.
12. All clearances must meet PVREA specifications and all NESC ,NEC, and state and Local rules and regulations.
13. All member, builder, or electrical contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
14. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.



ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Meter Loop, 320 Amp, Pole XX Footage as required	1	384X	d	Service Entrance Head 2"	1	5295
b	Conduit, 2" Sched 40 PVC x length as required	XX	2400	e	Rod, Ground 5/8" x 8', 13 Mil Copper	1	5190
c	Pipe Strap, 2", as required	X	4155	f	Clamp, Ground 5/8"	1	2010

DESIGN LIMITS:

METER LOOP, 1-PHASE, 320A SOCKET ONLY, METER ON POLE

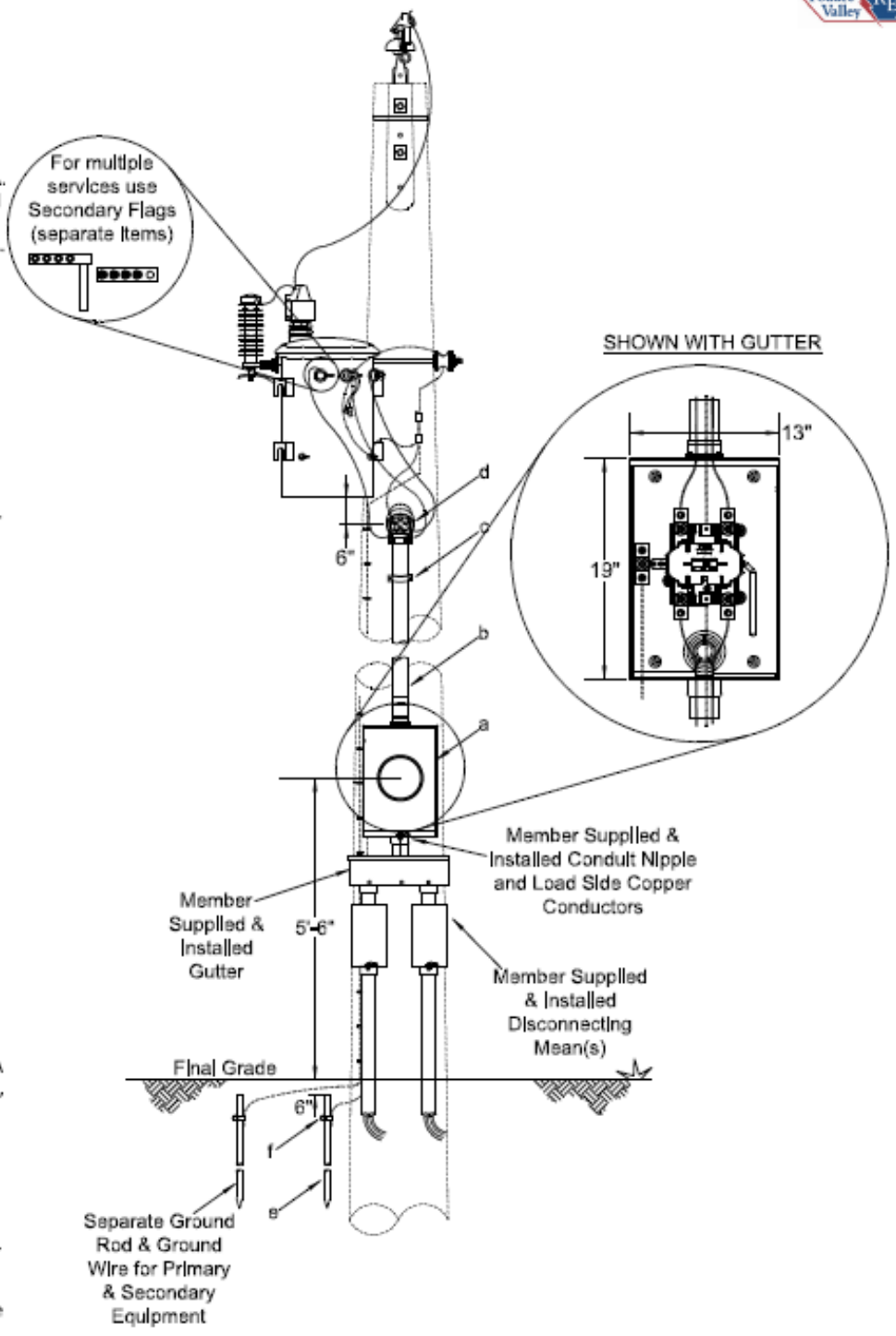
DATE: 3/25/2025	CHKD: RBP	APPVD: TER

POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

Q2.3.XX

Notes:

1. This configuration is only good for member owned and installed underground services.
2. "Down and Up" overhead services are not permitted on primary poles.
3. 320A Meter Socket to be supplied and installed by PVREA.
4. Weatherhead and weatherhead service conductors to be supplied and installed by PVREA.
5. Member to supply and install gutter and disconnecting mean(s) on load side of meter socket.
6. The member owned disconnecting means must be visible and within 10' of the PVREA meter socket.
7. Copper conductor is required for the connection between the load side of the meter and the Member's disconnecting means.
8. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and state and local rules and regulations.
9. All member owned equipment shall be strictly limited to one side of the pole, to allow for up to two services per pole.
10. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter socket.
11. Member to supply and install Member owned ground wire and ground rod. The ground wire shall be continuous from the disconnecting means to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and stapled to the pole at 24" maximum intervals.
12. All clearances must meet PVREA specifications and all NESC ,NEC, and state and Local rules and regulations.
13. All member, builder, or electrical contractor furnished items shall be installed and maintained by the member or the member's authorized agent.
14. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.



ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Meter Loop, 320 Amp, Pole XX Footage as required	1	384X	d	Service Entrance Head 2"	1	5295
b	Conduit, 2" Sched 40 PVC x length as required	XX	2400	e	Rod, Ground 5/8" x 8', 13 Mil Copper	1	5190
c	Pipe Strap, 2", as required	X	4155	f	Clamp, Ground 5/8"	1	2010

DESIGN LIMITS:

METER LOOP, 1-PHASE, 320A SOCKET ONLY, METER ON POLE

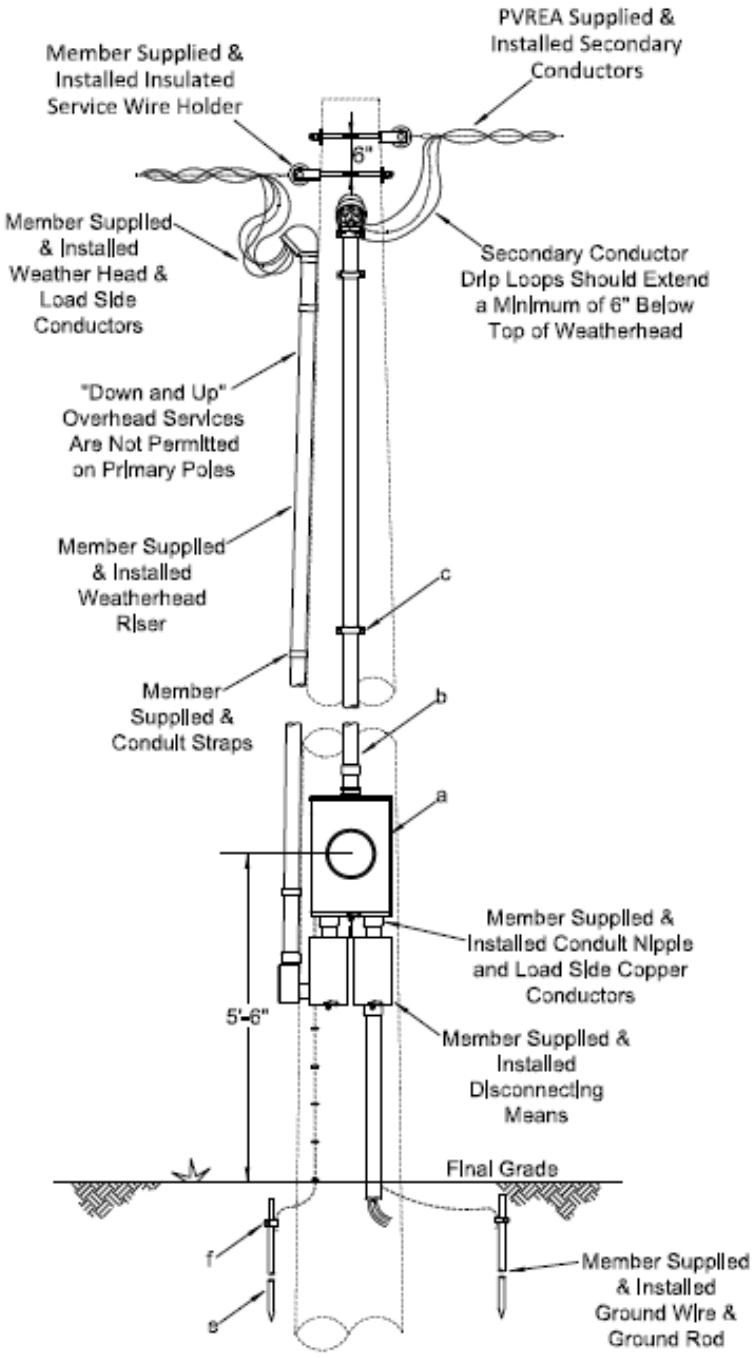
DATE: 3/25/2025 | CHKD: RBP | APPVD: TER

POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

Q2.3.XX

Notes:

1. This configuration is good for member owned and installed overhead "Down and Up" or underground services.
2. "Down and Up" overhead services are not permitted on primary poles.
3. 320A Meter Socket to be supplied and installed by PVREA.
4. Member side weatherhead and weatherhead service conductors to be supplied and installed by Member.
5. Member to supply and install conduit straps on member owned weatherhead riser. Maximum distance between straps not to exceed 5'.
6. Member to supply and install a disconnecting mean(s) on load side of meter socket.
7. The member owned disconnecting means must be visible and within 10' of the PVREA meter socket.
8. Copper conductor is required for the connection between the load side of the meter and the member's disconnecting means and within the member owned weatherhead riser.
9. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and state and local rules and regulations.
10. Member owned equipment shall be strictly limited to one side of the pole, to allow for up to two services per pole.
11. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter socket.
12. Member to supply and install member owned ground wire and ground rod. The ground wire shall be continuous from the disconnecting means to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and stapled to the pole at 24" maximum intervals.
13. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
14. All member, builder, or electrical contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
15. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.



ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Meter Loop, 320 Amp, Pole XX Footage as required	1	384X	d	Service Entrance Head 2"	1	5295
b	Conduit, 2" Sched 40 PVC x length as required	XX	2400	e	Rod, Ground 5/8" x 8', 13 Mil Copper	1	5190
c	Pipe Strap, 2", as required	X	4155	f	Clamp, Ground 5/8"	1	2010

DESIGN LIMITS:

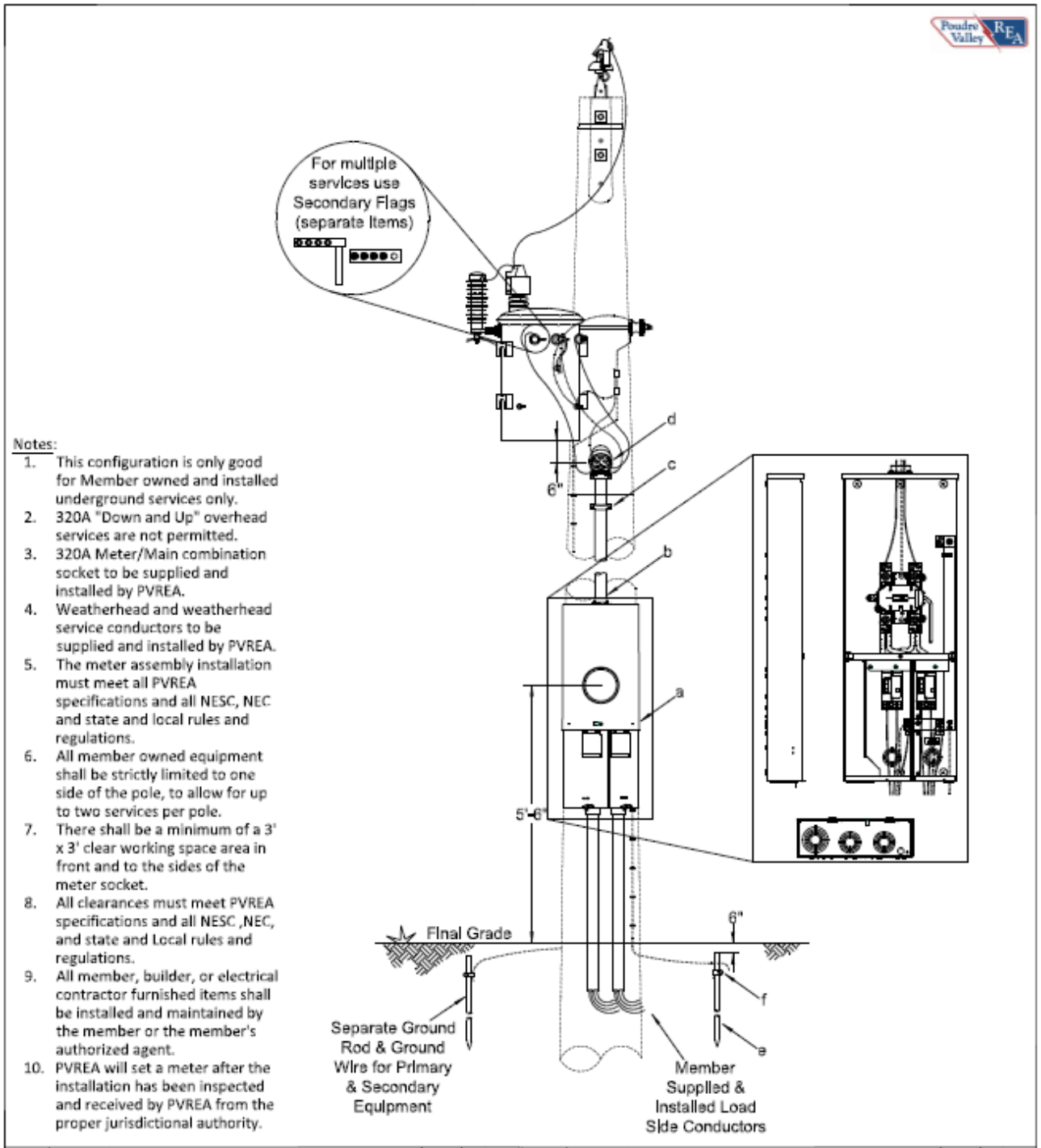
METER LOOP, 1-PHASE, 320A SOCKET ONLY, METER ON POLE

DATE: 3/25/2025 | CHKD: RBP | APPVD: TER

POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

Q2.3.XX

5.2.5 Single-Phase, Overhead, 120/240V, 320A Meter Main, Meter on Pole (MOP).



Notes:

1. This configuration is only good for Member owned and installed underground services only.
2. 320A "Down and Up" overhead services are not permitted.
3. 320A Meter/Main combination socket to be supplied and installed by PVREA.
4. Weatherhead and weatherhead service conductors to be supplied and installed by PVREA.
5. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and state and local rules and regulations.
6. All member owned equipment shall be strictly limited to one side of the pole, to allow for up to two services per pole.
7. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter socket.
8. All clearances must meet PVREA specifications and all NESC ,NEC, and state and Local rules and regulations.
9. All member, builder, or electrical contractor furnished items shall be installed and maintained by the member or the member's authorized agent.
10. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.

ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Meter Loop, 320 Amp, Pole Footage as required	1	38XX	d	Service Entrance Head 2"	1	5295
b	Conduit, 2" Sched 40 PVC x length as required	XX	2400	e	Rod, Ground 5/8" x 8', 13 Mil Copper	1	5190
c	Pipe Strap, 2", as required	X	4155	f	Clamp, Ground 5/8"	1	2010

DESIGN LIMITS:

320A METER / MAIN
COMBINATION, METER ON POLE

DATE: 9/15/23 | CHKD: RBP | APPVD: TER

POUDRE VALLEY
RURAL ELECTRIC ASSOCIATION

Q2.3MM.XX

5.3 PVREA Panel List and Associated Breakers.

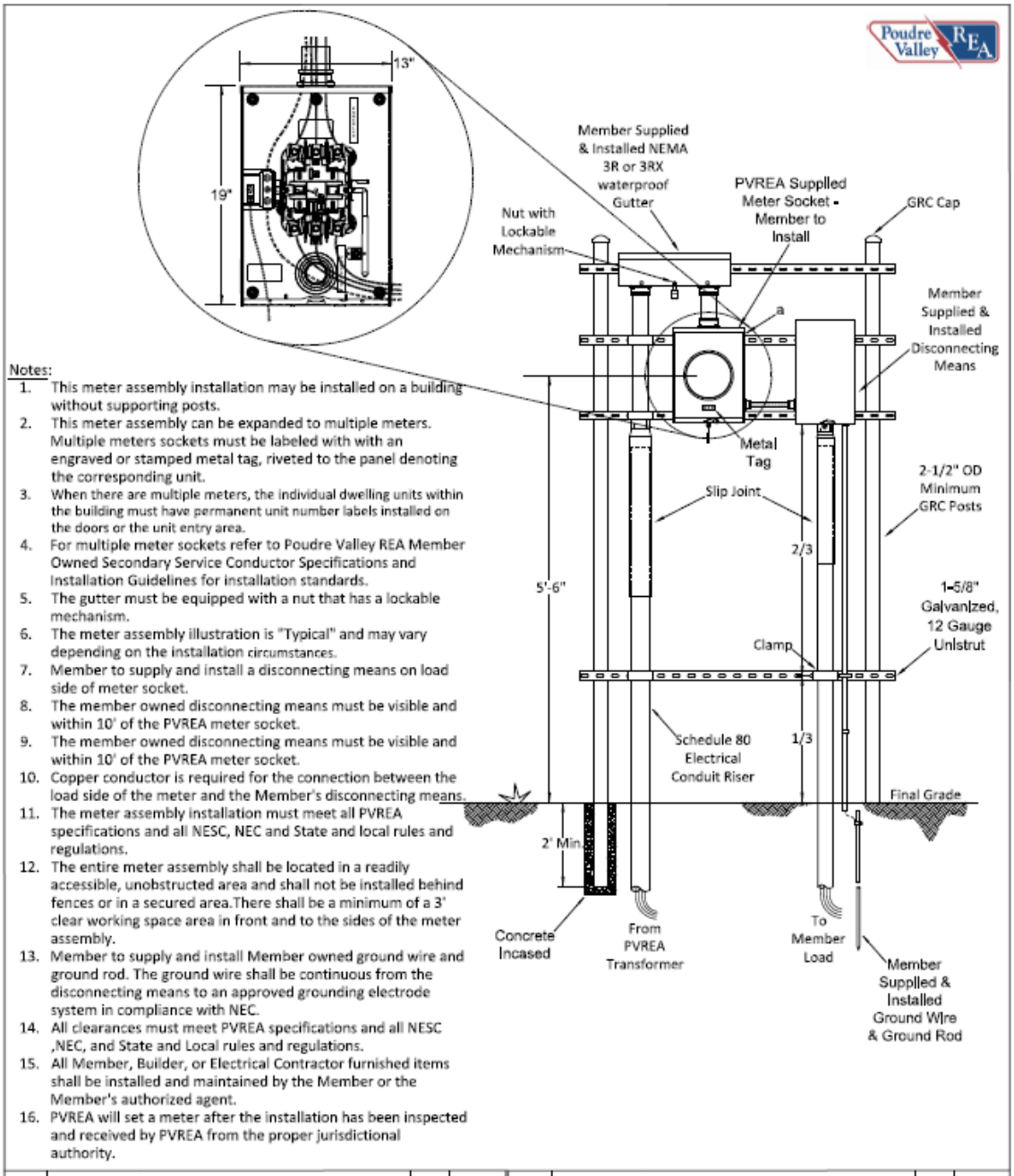
5.3.1 All breakers are the responsibility of the member/contractor/electrician.

Panel Type	Standard Unit	Panel Manufacturer	Description	Breaker Manufacturer	Breaker Model No.	Breaker Size	Comments
200A Pedestal (current)	UK5.2S & UK5.2D	Milbank	Current model	Milbank	UQFPH	200A	
200A Pedestal	UK5.2S & UK5.2D	Milbank	Old model >2025	Milbank	UQFP100M	100A	
200A Pedestal	UK5.2S & UK5.2D	Milbank	Old model >2025	Milbank	UQFP200M	200A	
200A Pedestal	UK5.2S & UK5.2D	Milbank	Old green	Eaton/Culter	CA2200	200A	
200A Pedestal	UK5.2S & UK5.2D	Milbank	Old gray	General Electric	TQDL21200	200A	
200A Pedestal	UK5.2S & UK5.2D	Milbank	Old gray	General Electric	TQDL21100	100A	
200A Pedestal	UK5.2S & UK5.2D	Milbank	Old gray	General Electric	THQL21100	100A	
200A Pedestal	UK5.2S & UK5.2D	Milbank	Old gray	General Electric	THQC2100WL	100A	
200A Pedestal	UK5.2S & UK5.2D	Heimemann	Old green pedestal	Heineman	X11360C	100A	Stacked Meters
320A Pedestal (current)	UK5.3S	The Durham Company	Current 320A Pedestal	Cutler Hammer	CCVH2200	200A	Requires two breakers
320A Pedestal (old)	UK5.3S	The Durham Company	Old model >2025	Siemens	JXD62B400	400A	Dual 3/0-350MCM load connectors, Siemens Cat. #TA2J6500
320A Pedestal	UK5.3S			Eaton/Culter	ARP01285	200A	Requires two breakers
200A Meter/Main MOP (current)	Q2.2MM.XX	The Durham Company	Current 200A MM MOP	Eaton/Culter Hammer	CCVH2200	200A	
200A Meter/Main	Q2.2MM.XX		200A MM MOP	Heineman	CE1G3U01001A	100A	
320A Meter/Main MOP (current)	Q2.3MM.XX	The Durham Company	Current 320A MM MOP	Eaton/Culter Hammer	CCVH2200	200A	Requires two breakers
Current Model							

5.4 Three-Phase Underground.

5.4.1 Three-Phase, Underground, 120/240V or 120/208V, 200A, mounted on a rack, or a building, or gang metering on a building.

5.4.1.1 Gang metering requires the member to install and furnish secondary/service conductors and conduits from the PVREA transformer to the member's service. Refer to "Gang Metering" and "Member Owned Secondary and Service Conductors" for specific installation details.



Notes:

1. This meter assembly installation may be installed on a building without supporting posts.
2. This meter assembly can be expanded to multiple meters. Multiple meters sockets must be labeled with with an engraved or stamped metal tag, riveted to the panel denoting the corresponding unit.
3. When there are multiple meters, the individual dwelling units within the building must have permanent unit number labels installed on the doors or the unit entry area.
4. For multiple meter sockets refer to Poudre Valley REA Member Owned Secondary Service Conductor Specifications and Installation Guidelines for installation standards.
5. The gutter must be equipped with a nut that has a lockable mechanism.
6. The meter assembly illustration is "Typical" and may vary depending on the installation circumstances.
7. Member to supply and install a disconnecting means on load side of meter socket.
8. The member owned disconnecting means must be visible and within 10' of the PVREA meter socket.
9. The member owned disconnecting means must be visible and within 10' of the PVREA meter socket.
10. Copper conductor is required for the connection between the load side of the meter and the Member's disconnecting means.
11. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
12. The entire meter assembly shall be located in a readily accessible, unobstructed area and shall not be installed behind fences or in a secured area.There shall be a minimum of a 3' clear working space area in front and to the sides of the meter assembly.
13. Member to supply and install Member owned ground wire and ground rod. The ground wire shall be continuous from the disconnecting means to an approved grounding electrode system in compliance with NEC.
14. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
15. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
16. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.

ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Socket, 3 Phase 200 Amp 7 Terminal	1	6075				

DESIGN LIMITS:

200A, 3-Phase,
120/240V or 120/208V

METER SOCKET, 7T, 3-PHASE, 200A,
120/240V or 120/208V,
ON BUILDING OR GANG ON BUILDING

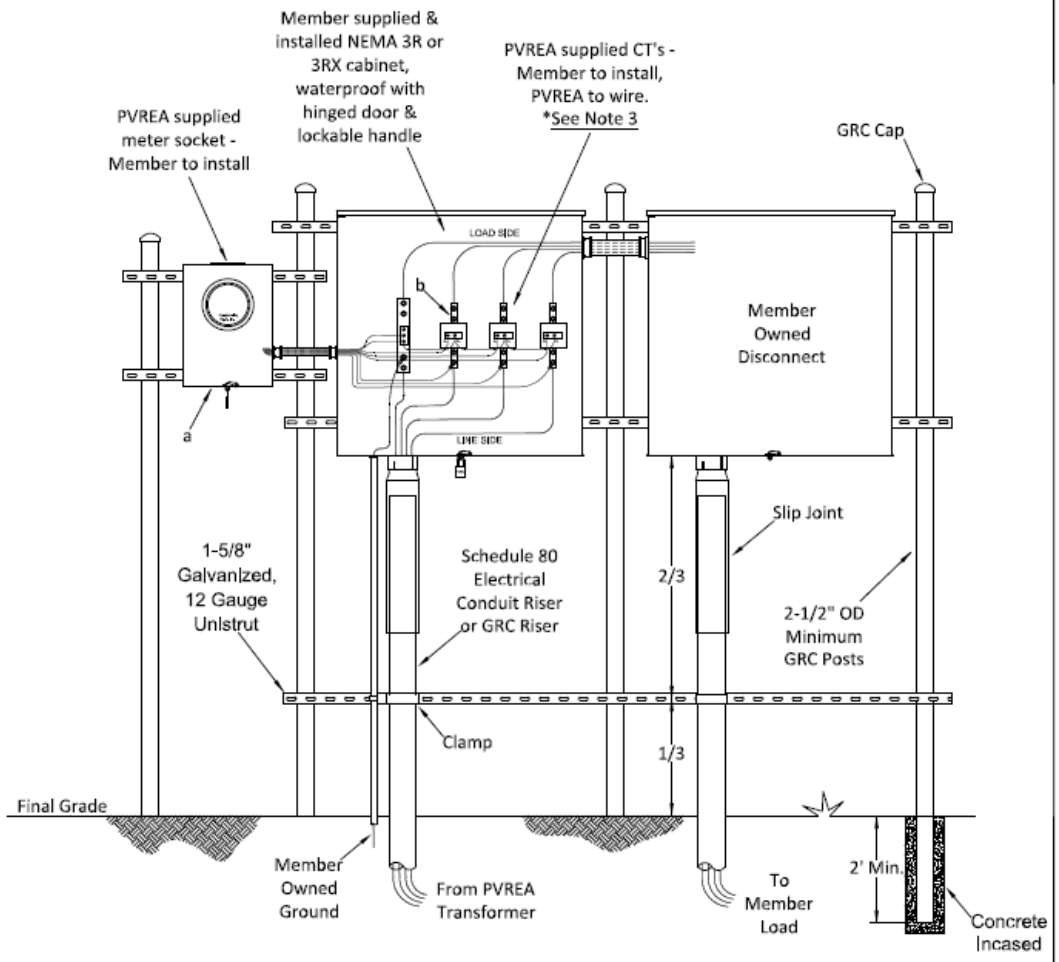
DATE: 07/31/2024 | CHKD: RBP | APPVD: TER

POUDRE VALLEY
RURAL ELECTRIC ASSOCIATION

UQ3.7

5.4.2 **Three-Phase, Underground, 120/240V or 120/208V, Instrument rated meter (greater than 200A), with CT's mounted on a rack or on a building.**

TYPICAL CT METER ASSEMBLY INSTALLATION



Notes:

1. This meter assembly installation may be installed on a building without supporting posts.
2. The meter assembly illustration is "Typical" and may vary depending on the installation circumstances.
3. PVREA to supply, Member to install CT's. PVREA to wire CT's. CT polarity dot to face line side.
4. All CT installations must be approved by PVREA Engineering.
5. The number of conduits and service conductors may vary depending on the size of the service. Refer to Poudre Valley REA Member Owned Secondary Service Conductor Specifications and Installation Guidelines for installation standards.
6. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
7. The entire meter assembly shall be located in a readily accessible, unobstructed area and shall not be installed behind fences or in a secured area.
8. The member owned disconnecting means must be visible and within 10' of the PVREA meter socket.
9. There shall be a minimum of a 5' clear working space area in front and to the sides of the meter assembly.
10. Member to supply and install ground wire and ground rod or ufer ground wire. The ground wire shall be continuous from the meter assembly to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and attached.
11. All clearances must meet PVREA specifications and all NESC, NEC, and State and Local rules and regulations.
12. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
13. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.

ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Socket, 13 Terminal Wired W/A	1	6065	b	CT's - Bar Type (Ratio Varies)	3	CTS43XXX

DESIGN LIMITS:

3-Phase, 120/240V or 120/208V

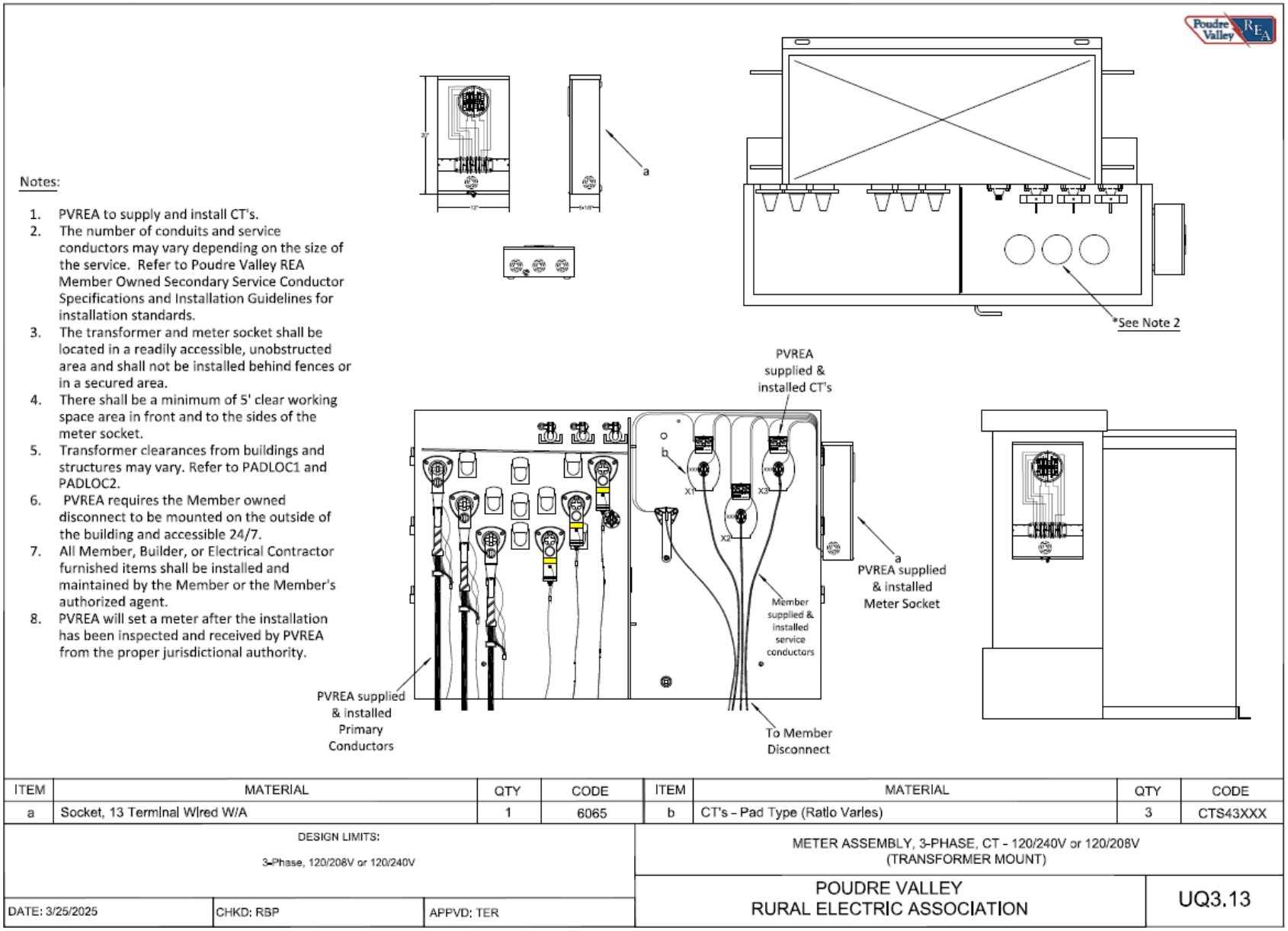
METER ASSEMBLY, 3-PHASE, CT - 120/240V OR 120/208V
(POST OR BUILDING MOUNT)

DATE: 3/25/2025	CHKD: RBP	APPVD: TER

POUDRE VALLEY
RURAL ELECTRIC ASSOCIATION

UQ3.13

5.4.3 **Three-Phase, Underground, 120/240V or 120/208V Instrument rated meter (greater than 200A), with CT's transformer mounted**. - Transformer mounted meter sockets require the member to furnish and install secondary/service conductors and conduits from the PVREA transformer to the member's service. Refer to "Member Owned Secondary and Service Conductors" for specific installation details.

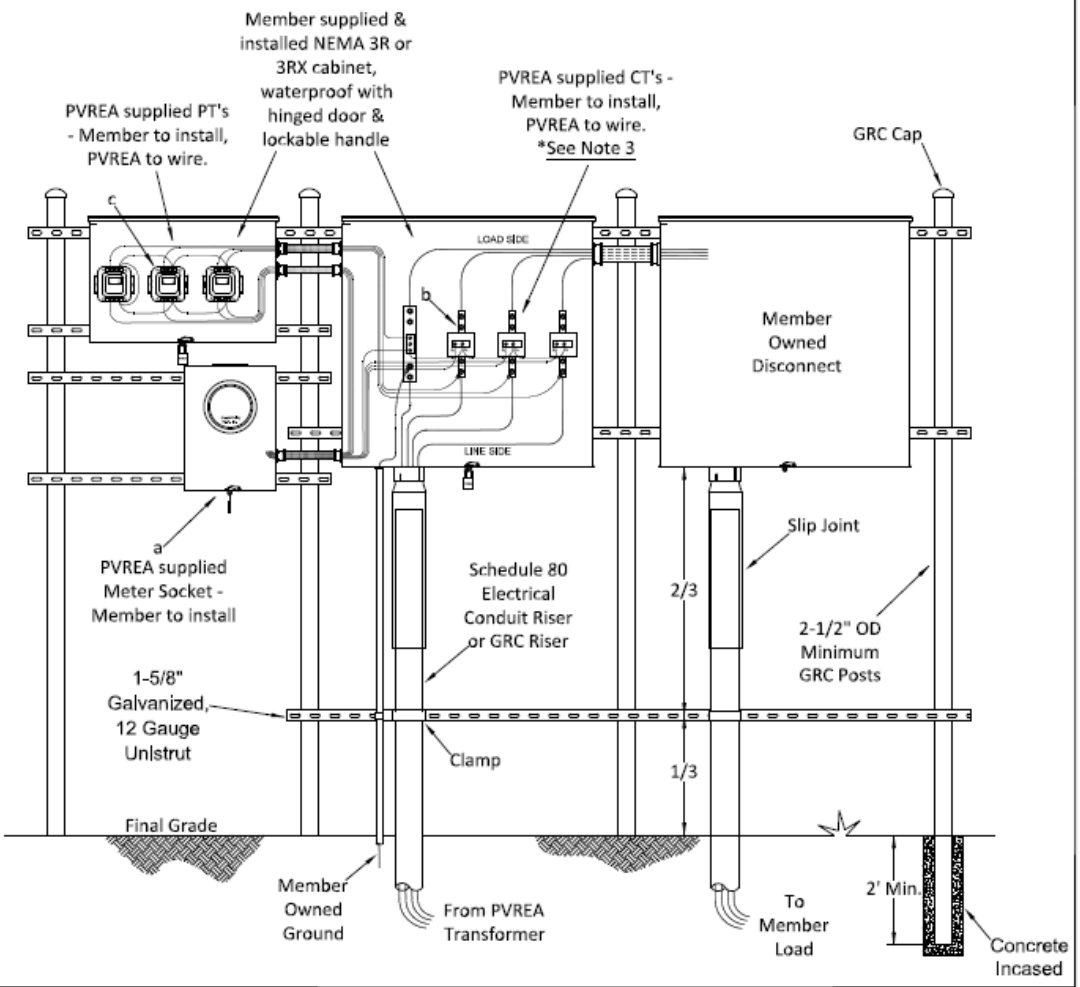


5.4.4 Three-Phase, Underground, 277/480V, Instrument rated meter with CT's and PT's, mounted on a rack or building.

TYPICAL CT/PT METER ASSEMBLY INSTALLATION

Notes:

1. This meter assembly installation may be installed on a building without supporting posts.
2. The meter assembly illustration is "Typical" and may vary depending on the installation circumstances.
3. PVREA to supply, Member to install CT's and PT's. PVREA to wire CT's and PT's. CT polarity dot to face line side.
4. All CT and PT installations must be approved by PVREA Engineering.
5. The number of conduits and service conductors may vary depending on the size of the service. Refer to Poudre Valley REA Member Owned Secondary Service Conductor Specifications and Installation Guidelines for installation standards.
6. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
7. The entire meter assembly shall be located in a readily accessible, unobstructed area and shall not be installed behind fences or in a secured area.
8. The member owned disconnecting means must be visible and within 10' of the PVREA meter socket.
9. There shall be a minimum of a 5' clear working space area in front and to the sides of the meter assembly.
10. Member to supply and install ground wire and ground rod or ufer ground wire. The ground wire shall be continuous from the meter assembly to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and attached.
11. All clearances must meet PVREA specifications and all NESC, NEC, and State and Local rules and regulations.
12. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
13. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.



ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Socket, 13 Terminal Wired	1	6065	c	PT's (Ratio Varies)	3	VTS432XX
b	CT's - Bar Type (Ratio Varies)	3	CTS43XXX				

DESIGN LIMITS:

3-Phase, 277/480V

METER ASSEMBLY, 3-PHASE, CT/PT - 277/480V
(POST OR BUILDING MOUNT)

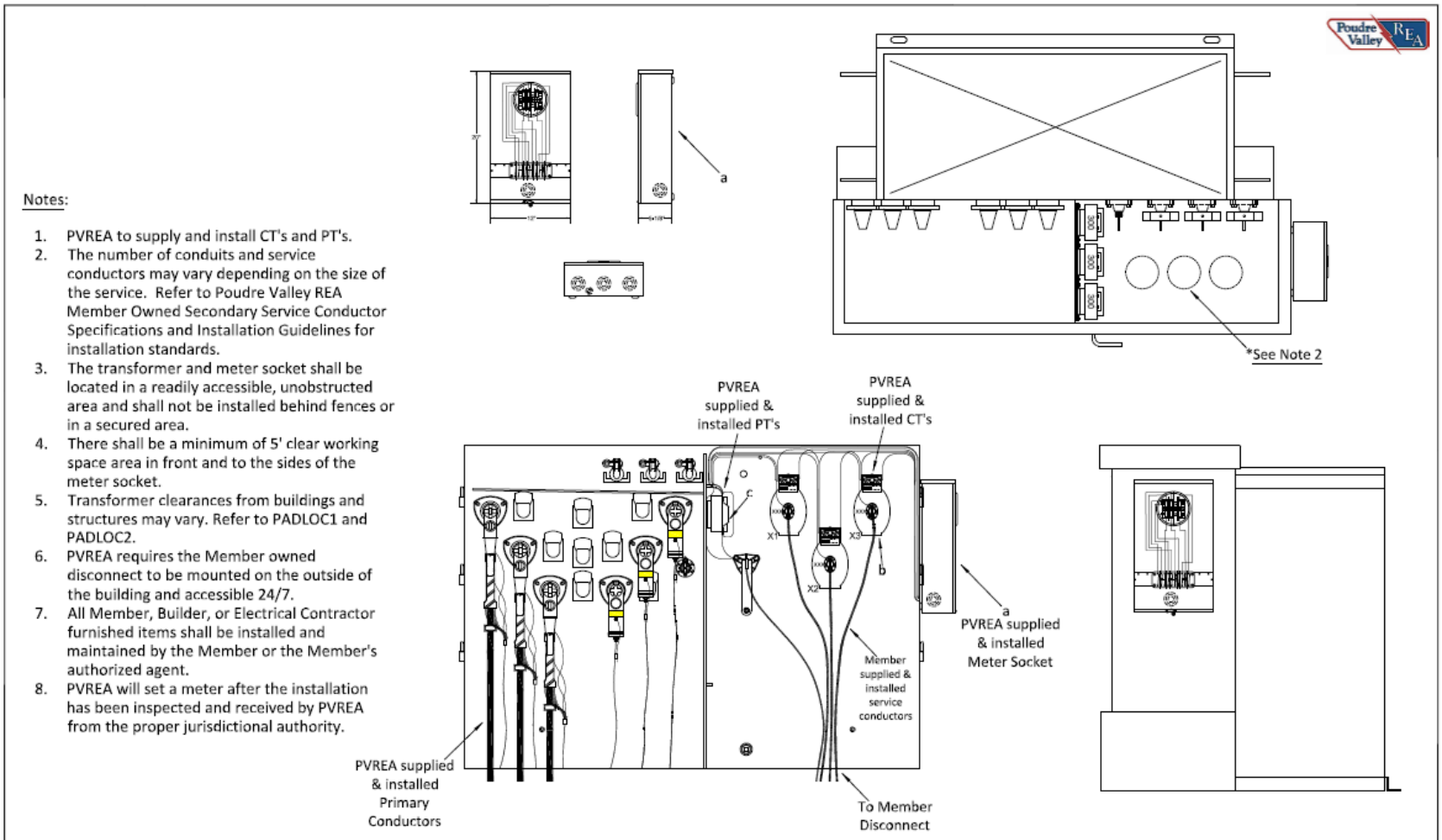
DATE: 3/25/2025 | CHKD: RBP | APPVD: TER

POUDRE VALLEY
RURAL ELECTRIC ASSOCIATION

UQ3.13A

5.4.5 **Three-Phase, Underground, 277/480V, Instrument rated meter, with CT's and PT's transformer mounted.**

5.4.5.1 Transformer mounted meter sockets require the member to furnish and install secondary/service conductors and conduits from the PVREA transformer to the member's service. Refer to "Member Owned Secondary and Service Conductors" for specific installation details.

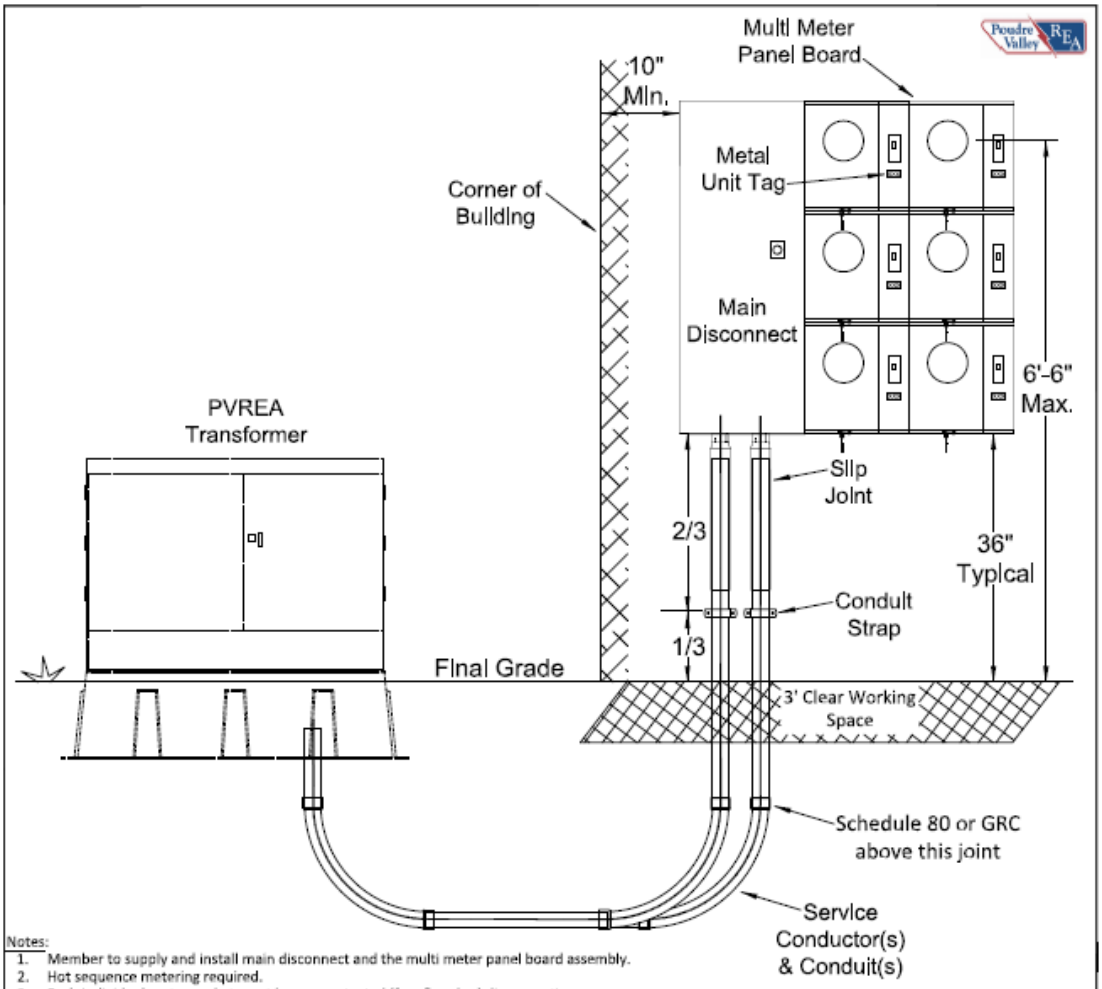


ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Socket, 13 Terminal Wired	1	6065	c	PT's (Ratio Varies)	3	VTS432XX
b	CT's - Pad Type (Ratio Varies)	3	CTS43XXX				

DESIGN LIMITS: 3-Phase, 277/480V			METER ASSEMBLY, 3-PHASE, CT/PT - 277/480V (TRANSFORMER MOUNT)	
DATE: 3/25/2025	CHKD: RBP	APPVD: TER	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	UQ3.13A

5.4.6 **Three-Phase, Underground, 120/208V, 200A, gang metering on building**.

5.4.6.1 Gang metering requires the member to furnish and install secondary/service conductors and conduits from the PVREA transformer to the member's service. Refer to "Gang Metering" and "Member Owned Secondary and Service Conductors" for specific installation details. Except in the case of an emergency, contact PVREA before shutting the main disconnect off to all meters (this will indicate a PVREA outage and a crew may be dispatched, charges may be incurred).



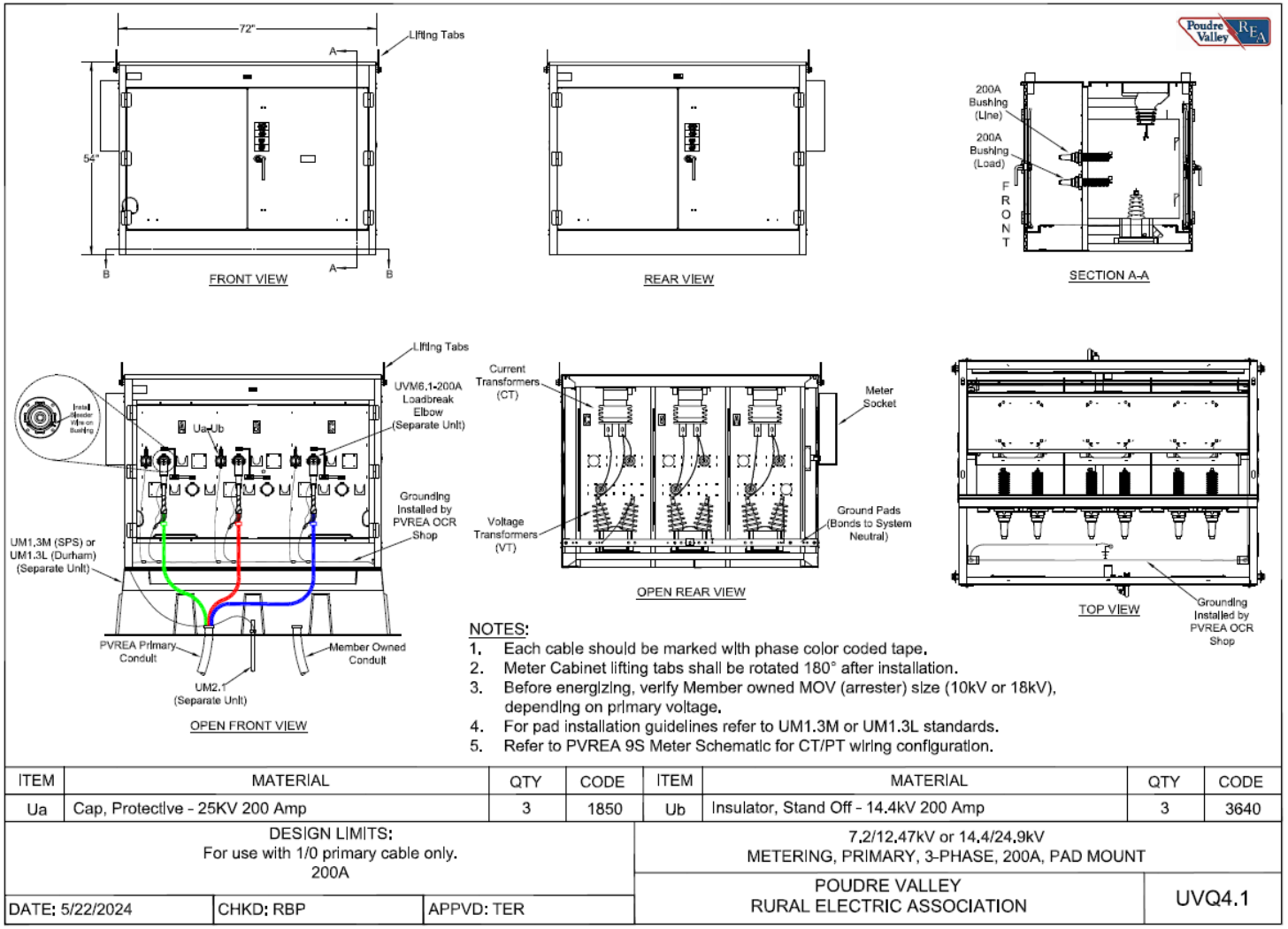
Notes:

1. Member to supply and install main disconnect and the multi meter panel board assembly.
2. Hot sequence metering required.
3. Each individual meter socket must have a protected (fuse/breaker) disconnecting means.
4. Each individual meter socket must be labeled with an engraved or stamped metal tag, riveted to the panel denoting the corresponding unit. Tag to be installed on the breaker side of the panel. The Member/Electrician must be onsite during meter sets to verify breaker and unit coordinate.
5. The individual dwelling units within the building must have permanent unit number labels installed on the doors or the unit entry area.
6. All meter sockets must be equipped with a lever by-pass switch (No Horn By-passes).
7. The meter assembly illustration is "Typical" and may vary depending on the installation circumstances.
8. Member to supply and install all service conduit(s) and conductor(s). The Member is responsible for all service conductor terminations (Transformer & Meter) as well as phase rotation. The number of conduits and service conductors may vary depending on the size of the service. Refer to Poudre Valley REA Member Owned Secondary Service Conductor Specifications and Installation Guidelines for installation standards.
9. For Ampere Interrupting Capacity (AIC) ratings refer to PVREA website, www.pvrea.coop.
10. Member to supply and install meter service riser(s), strap(s), slip joint(s), and locknut(s). The riser must be schedule 80 electrical conduit or galvanized rigid conduit.
11. The entire meter assembly shall be located in a readily accessible, unobstructed area, and shall not be installed behind fences or in a secured area.
12. Working clearances in front and to the sides of the meter assembly must meet all NEC and NESC requirements.
13. Member to supply and install ground wire and ground rod or ufer ground wire. The ground wire shall be continuous from the meter socket to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and attached to the building at 24" maximum intervals.
14. All clearances (e.g., gas, windows, window wells) must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
15. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and, State and local rules and regulations.
16. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
17. PVREA will set a meter(s) after the installation has been inspected and received by PVREA from the proper jurisdictional authority.

DESIGN LIMITS: 120/208V	GANG METER ASSEMBLY, 3-PHASE, 200A, 120/208V, GANG METER ASSEMBLY ON BUILDING	
DATE: 3/25/2025 | CHKD: RBP | APPVD: TER	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	UQ3.7B

5.4.7 **Three-Phase, Underground, primary metering (500kVA minimum).** Member-owned overcurrent protective devices (fuses, breakers, etc.) must coordinate with PVREA's upstream overcurrent protection. The term "coordinate" in this sense means the member's time-current characteristic curves shall be separated from PVREA's time-current characteristic curves by a minimum of 0.2 seconds (PVREA total clear to member response) at any given point. The member-owned protective device coordination shall be based on information provided by PVREA Engineering. This information will include upstream impedance, primary voltage, and upstream protective device information.

5.4.7.1 Contact PVREA Engineering Department for information and specifics regarding overvoltage protection (lightning arresters).



ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
Ua	Cap, Protective - 25KV 200 Amp	3	1850	Ub	Insulator, Stand Off - 14.4kV 200 Amp	3	3640

DESIGN LIMITS: For use with 1/0 primary cable only. 200A			7.2/12.47kV or 14.4/24.9kV METERING, PRIMARY, 3-PHASE, 200A, PAD MOUNT	
DATE: 5/22/2024	CHKD: RBP	APPVD: TER	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	UVQ4.1

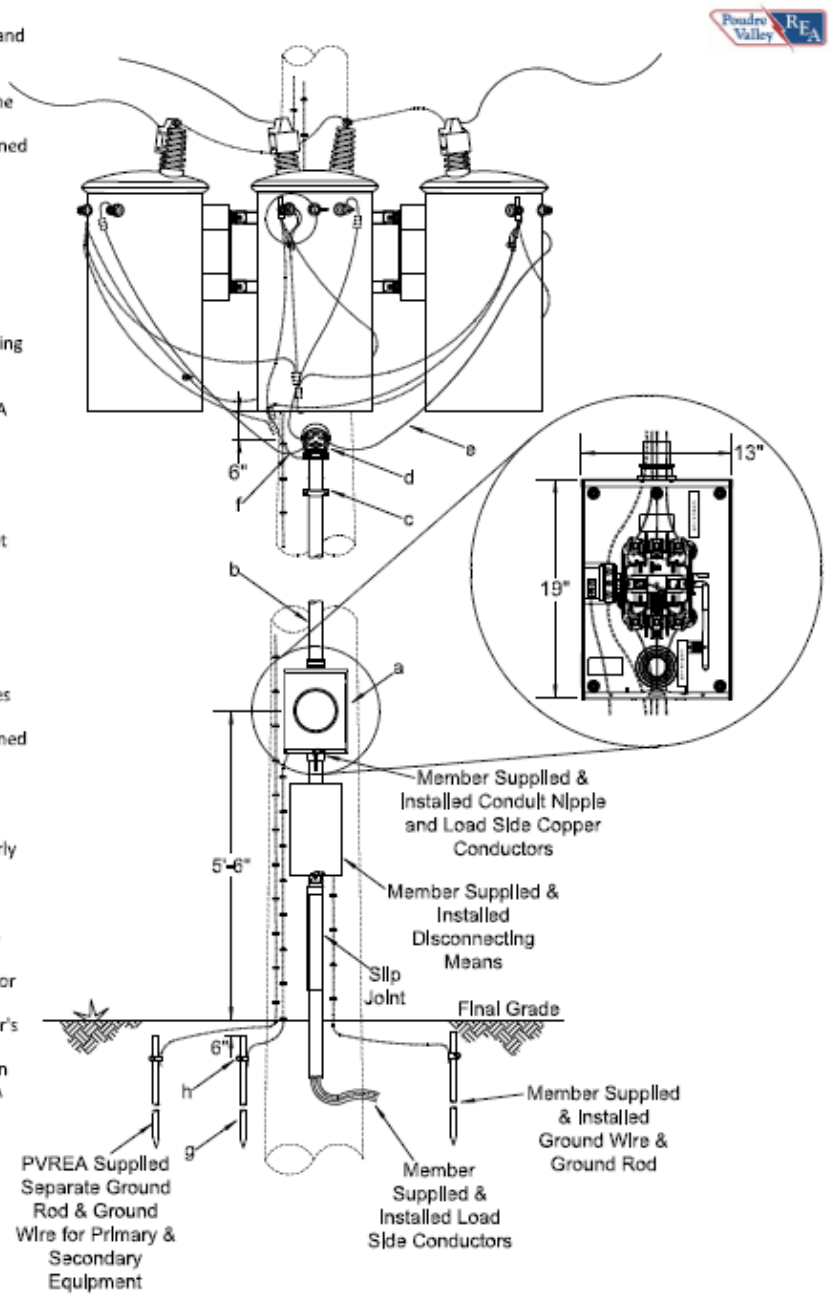
5.5 Three-Phase Overhead.

5.5.1 Three-Phase, Overhead, 120/240V or 120/208V, 200A, Meter on Pole (MOP), meter socket only.

Notes:

1. Standard unit Q3.7 is a meter socket only and does not include any of the weaherhead components. Standard unit Q3.7.XX is a meter socket and weatherhead riser per the required length.
2. This configuration is good for Member owned and installed underground services only.
3. "Down and Up" overhead services are not permitted on primary poles.
4. 200A meter socket to be supplied and installed by PVREA.
5. Weatherhead and weatherhead service conductors to be supplied and installed by PVREA.
6. Member to supply and install a disconnecting means on load side of meter socket.
7. The member owned disconnecting means must be visible and within 10' of the PVREA meter socket.
8. Copper conductor is required for the connection between the load side of the meter and the Member's disconnecting means.
9. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
10. All member owned equipment shall be strictly limited to one side of the pole, to allow for up to two services per pole.
11. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter socket.
12. Member to supply and install Member owned ground wire and ground rod. The ground wire shall be continuous from the disconnecting means to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and stapled to the pole at 24" maximum intervals.
13. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
14. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
15. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.
16. **CAUTION** Over tightening of secondary terminals may result in equipment damage. Secondary terminals should be tightened in accordance with the following torque requirements:

Eye Bolt Size	Torque
3/8-16	15-17 ft-lb
1/2-13	32-35 ft-lb



ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Socket, 3 Phase 200 Amp 7 Terminal	1	6075	e	Wire, 3/0 XHHW x length as required	XX	7125
b	Conduit, 2" Sched 40 PVC x length as required	XX	2400	f	Wire, #2 S D - Solid Copper x length as required	XX	7380
c	Pipe Strap, 2", as required	X	4155	g	Rod, Ground 5/8" x 8', 13 Mil Copper	1	5190
d	Service Entrance Head 2"	1	5295	h	Clamp, Ground 5/8"	1	2010

DESIGN LIMITS:

Q3.7- Socket only (No Weatherhead)
3-Phase 120/240V or 120/208V services.
Retirement only for 277/480V services.

METER LOOP, 3-PHASE, 200A 7T
METER SOCKET, METER ON POLE

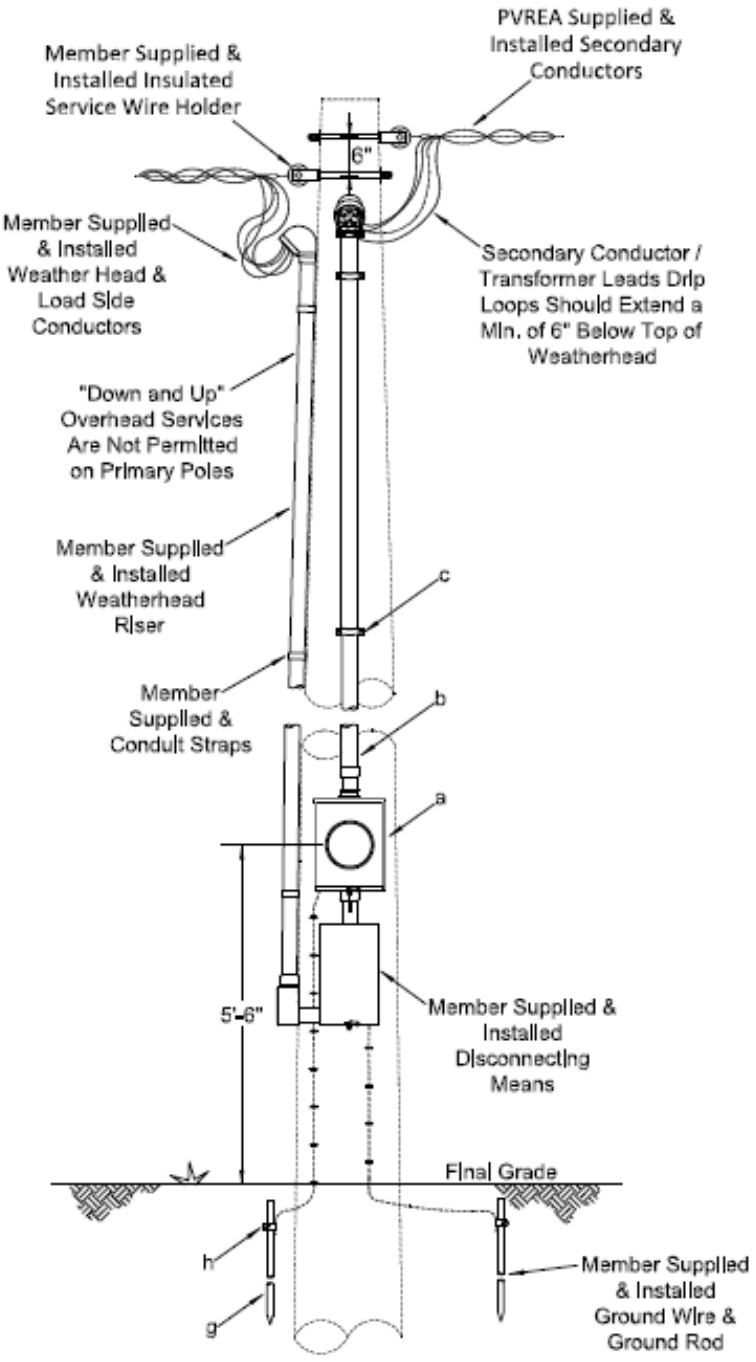
DATE: 3/25/2025 | CHKD: RBP | APPVD: TER

POUDRE VALLEY
RURAL ELECTRIC ASSOCIATION

Q3.7
Q3.7.XX

Notes:

1. Standard unit Q3.7 is a meter socket only and does not include any of the weaherhead components. Standard unit Q3.7.XX is a meter socket and weatherhead riser per the required length.
2. This configuration is good for Member owned and installed overhead "Down and Up" or underground services.
3. "Down and Up" overhead services are not permitted on primary poles.
4. 200A Meter Socket to be supplied and installed by PVREA.
5. Member side weatherhead and weatherhead service conductors to be supplied and installed by Member.
6. Member to supply and install conduit straps on Member owned weatherhead riser. Maximum distance between straps not to exceed 5'.
7. Member to supply and install a disconnecting means on load side of meter socket.
8. The member owned disconnecting means must be visible and within 10' of the PVREA meter socket.
9. Copper conductor is required for the connection between the load side of the meter and the Member's disconnecting means and within the Member owned weatherhead riser.
10. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
11. All member owned equipment shall be strictly limited to one side of the pole, to allow for up to two services per pole.
12. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of the meter socket.
13. Member to supply and install Member owned ground wire and ground rod. The ground wire shall be continuous from the disconnecting means to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and stapled to the pole at 24" maximum intervals.
14. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
15. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
16. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.



ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Socket, 3 Phase 200 Amp 7 Terminal	1	6075	e	Wire, 3/0 XHHW x length as required	XX	7125
b	Conduit, 2" Sched 40 PVC x length as required	XX	2400	f	Wire, #2 S D - Solid Copper x length as required	XX	7380
c	Pipe Strap, 2", as required	X	4155	g	Rod, Ground 5/8" x 8', 13 Mil Copper	1	5190
d	Service Entrance Head 2"	1	5295	h	Clamp, Ground 5/8"	1	2010

DESIGN LIMITS:

Q3.7- Socket only (No Weatherhead)
3-Phase 120/240V or 120/208V services.
Retirement only for 277/480V services.

METER LOOP, 3-PHASE, 200A 7T
METER SOCKET, METER ON POLE

DATE: 3/25/2025 | CHKD: RBP | APPVD: TER

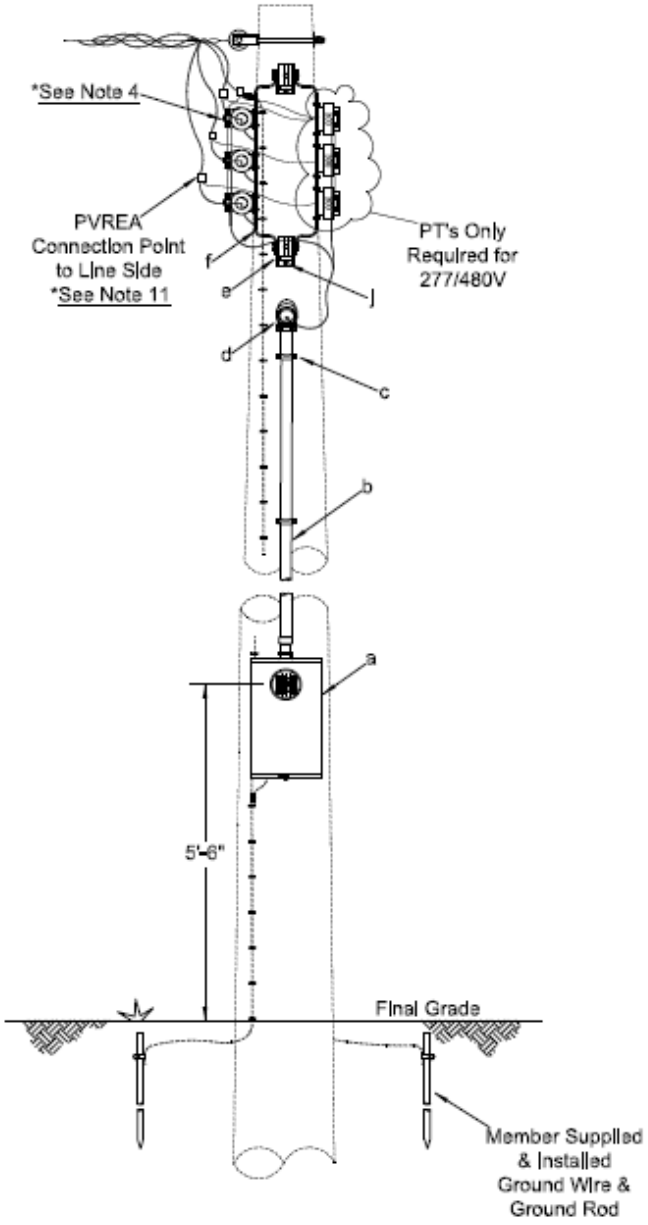
POUDRE VALLEY
RURAL ELECTRIC ASSOCIATION

Q3.7
Q3.7.XX

5.5.2 Three-Phase, Overhead, 120/240V, or 120/208V, or 277/480V, Instrument rated meter (greater than 200A) with CT's and PT's (PT's for 277/480V only), Meter on Pole (MOP).

Notes:

1. Q3.13 is the meter socket only.
2. CT/PT services are not permitted on primary poles.
3. PT's are only required for 277/480V services.
4. CT polarity dot to face line side.
5. Member side weatherhead and weatherhead service conductors to be supplied and installed by the Member.
6. Member to supply and install conduit straps on Member owned weatherhead riser. Maximum distance between straps not to exceed 5'.
7. Member to supply and install a disconnecting means on load side of the PT/CT meter configuration.
8. The Member owned disconnecting means may be located at a separate Member owned service pole or structure (e.g., pump house). In this scenario, the Member owned load side conductors will be overhead and come off the backside of the PVREA pole.
9. The member owned disconnecting means must be visible from and within 10' of the PVREA meter socket.
10. Copper conductor is recommended within the Member owned weatherhead riser.
11. The overhead connection for member owned conductor that is larger than 4/0 will be the responsibility of the member.
12. The member is responsible for all connections and member owned conductors beyond the CT metering point.
13. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
14. There shall be a minimum of a 3' x 3' clear working space area in front and to the sides of both the meter socket and the Member's disconnecting means.
15. Member to supply and install Member owned ground wire and ground rod. The ground wire shall be continuous from the disconnecting means to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and stapled to the pole at 24" maximum intervals.
16. All clearances must meet PVREA specifications and all NESC ,NEC, and State and Local rules and regulations.
17. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
18. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.



ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Socket, 13 Terminal Wired	1	383X	f	Bracket, CT/PT Meter Long Half	2	1510
b	Conduit, 1" Aluminum x length as required	XX	2355	j	Bolt, Machine 5/8" x 10"	2	1230
c	Pipe Strap, 1" as required	X	4110	k	Washer, 3" Curved, 5/8" Hole	2	6990
d	Service Entrance Head 1"	1	5250	aw	Washer, Springlocks, 5/8" as required	–	—
e	Bracket, CT/PT Meter Short Half	2	1505				

DESIGN LIMITS:

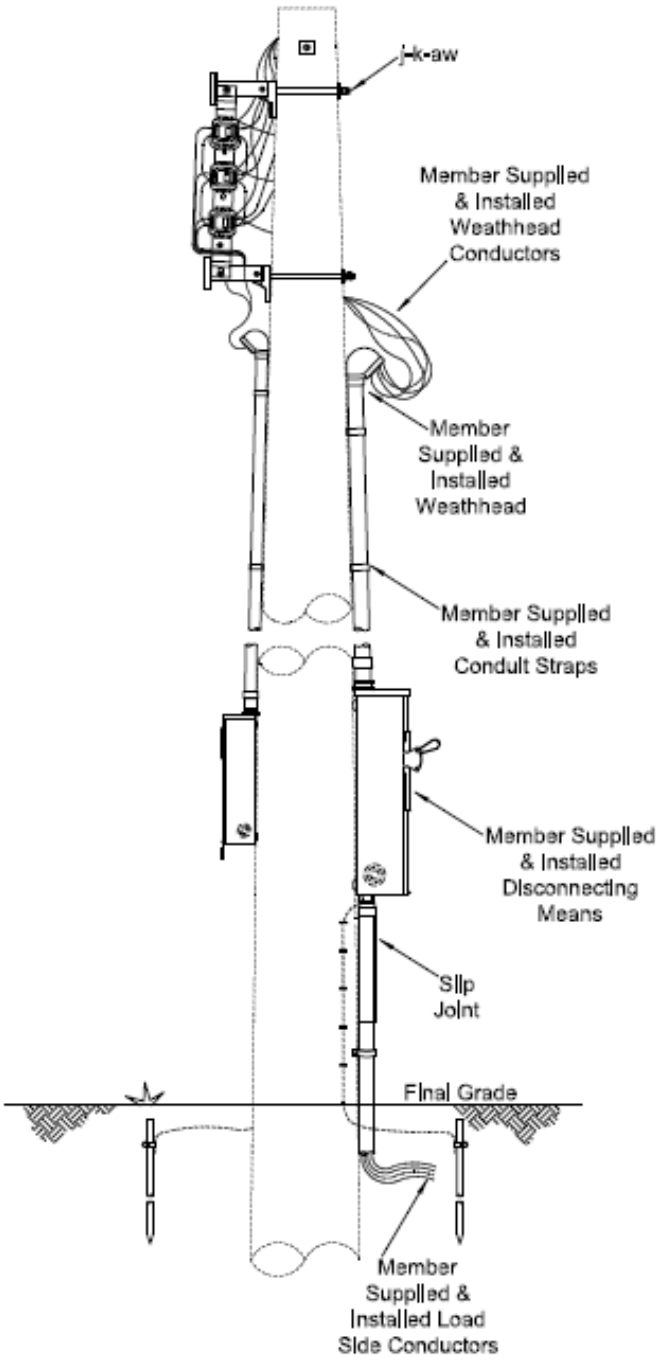
PT's Only Required for 277/480V.
Q3.13 (Retirement Only)

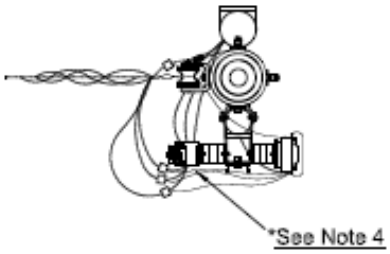
METERING, 3-PHASE, CT / PT, 13 TERMINAL, METER ON POLE

DATE: 3/25/2025 | CHKD: RBP | APPVD: TER

POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

Q3.13
Q3.13.XX





ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Socket, 13 Terminal Wired	1	383X	f	Bracket, CT/PT Meter Long Half	2	1510
b	Conduit, 1" Aluminum x length as required	XX	2355	j	Bolt, Machine 5/8" x 10"	2	1230
c	Pipe Strap, 1" as required	X	4110	k	Washer, 3" Curved, 5/8" Hole	2	6990
d	Service Entrance Head 1"	1	5250	aw	Washer, Springlocks, 5/8" as required	–	—
e	Bracket, CT/PT Meter Short Half	2	1505				

DESIGN LIMITS:

PT's Only Required for 277/480V.
Q3.13 (Retirement Only)

METERING, 3-PHASE, CT / PT, 13 TERMINAL, METER ON POLE

DATE: 3/25/2025	CHKD: RBP	APPVD: TER

POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

Q3.13
Q3.13.XX

5.5.3 **Three-Phase, Overhead, Primary Metering.**

5.5.3.1 Consult the PVREA Engineering Department regarding Overhead Primary Metering. The member shall maintain phase load balancing within 5%.

5.6 Net Metering Rooftop Solar Requirements.

5.6.1 It is crucial that your planned rooftop solar project meets NEC, NESC, PVREA and AHJ standards to properly operate within the PVREA system. Rooftop solar systems must generate less than 25kW or 120% of the twelve-month historical usage at the metering point, whichever is less.

5.6.2 The PVREA Energy Resources Department must be contacted prior to any work being done on any existing NET metering electrical service upgrades. In most cases, PVREA owns the facilities up to the metering point. Absolutely no PVREA equipment, including the meter, may be replaced, removed, or upgraded without prior PVREA notification and permission. Removing the meter may be considered energy diversion. Refer section “Energy Diversion” for further information.

5.7 Net Metering (member generation) Level I (less than 25kW).

5.7.1 Rooftop Solar or other Member Generation; Steps to Connect: Contact PVREA first and talk to an energy expert to discuss your plans, review your energy needs, and find out what solutions might best work for your needs. An energy expert can be reached via phone or email at energyuse@pvrea.coop.

5.7.2 Reduce your overall electrical consumption through energy efficiency products and upgrades before calculating how much rooftop solar production you will need. Small steps towards better energy efficiency can help optimize the PV system, instead of producing more energy than you might actually need. These resources help identify areas where you can be more energy efficient in your home. You may also find various rebates to help offset the cost of your system.

5.7.3 Calculate your energy needs only after upgrading your energy efficiency. This will help you better determine exactly how much solar energy production you will need. Estimations are calculated based on your average (or expected) energy use and the potential solar energy that can be produced at your address.

5.7.4 Consult with a qualified installer and research the company or contractor you plan to use. Make sure your installer has a good reputation in your area. Make certain you research the details about how your system is expected to be paid for or financed.

5.7.5 Before you install any equipment, ensure the system’s size matches your energy consumption, has a realistic payback timeline, and can be properly integrated within PVREA’s distribution system.

5.7.6 Review the PVREA Net-Metering Application. You can access the application through the PVREA website or at the PVREA office. Ensure that your planned system meets PVREA’s Interconnection Standards and is approved by PVREA prior to signing any contracts and paying for anything to a provider. Systems must be under 25 kW or 120% of your twelve-month historical usage at the metering point, whichever is less.

5.7.7 Know what information you or your contractor/installer must submit to meet PVREA Interconnection Standards. Understand when you need to schedule time for our crews to be on-site during your installation – including anything that has to do with temporarily de-energizing and/or removing PVREA meters.

5.7.8 Check building, zoning, HOA, and/or AHJ requirements. Contact the building and zoning departments in your county to request a building permit and/or an electrical permit for an electrical addition. Also contact your homeowner's association and AHJ.

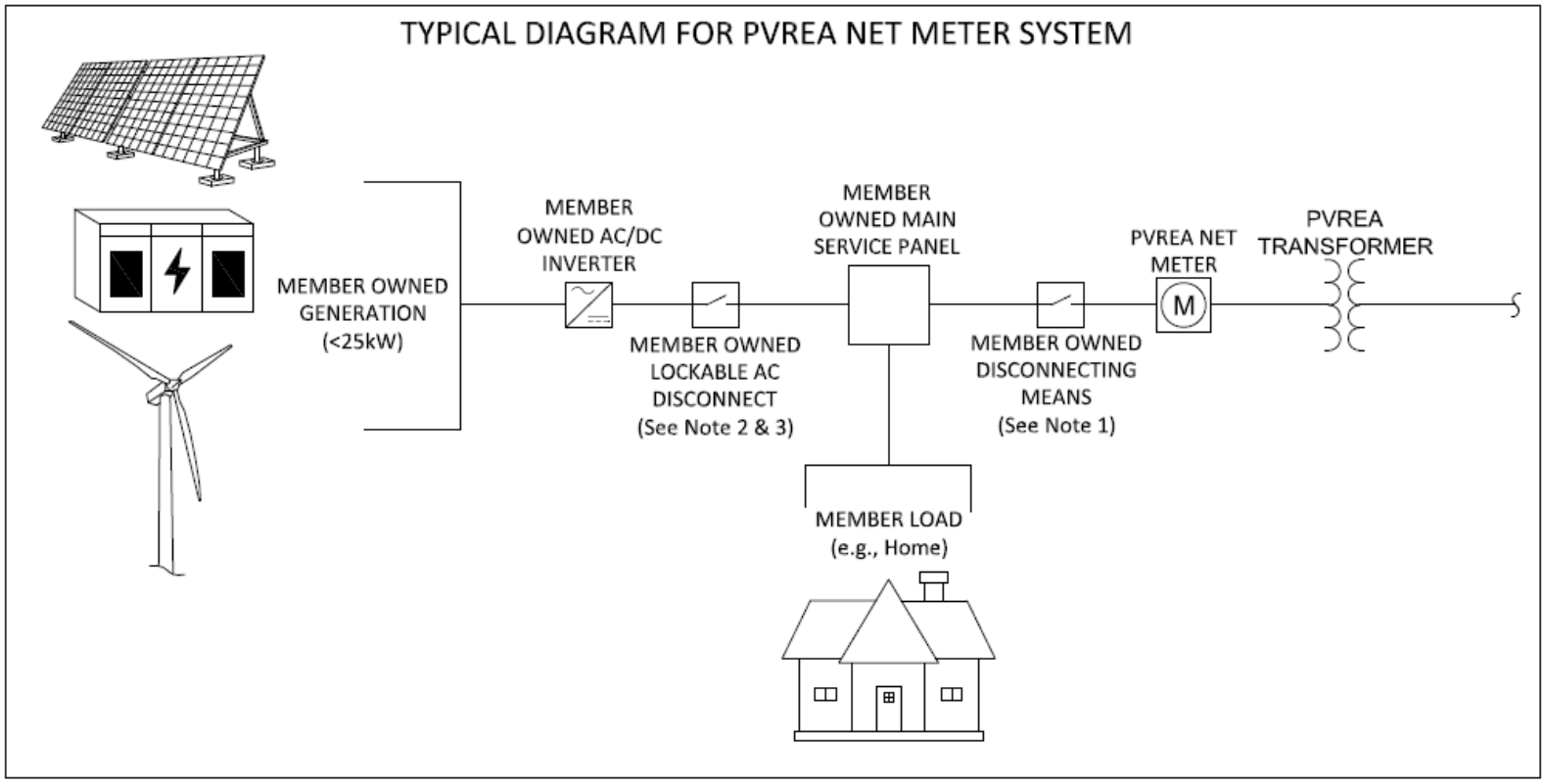
5.7.9 Submit your completed Net-Metering Application to PVREA. Be sure to pay all the associated fees with the application.

5.7.10 After the submittal of a completed Net-Metering application, PVREA will review the application and, if approved, PVREA will provide an executed interconnection agreement.

5.7.11 Install your system. If your system installation requires your service to be disconnected contact PVREA to schedule a crew to be onsite during the installation. PVREA does not allow installers, contractors, and/or members to de-energize or remove PVREA meters or facilities, this is considered energy diversion.

5.7.12 Once your system has been installed and inspected by the AHJ, submit your Certificate of Completion form. The Certificate of Completion form can be accessed on the PVREA website or at the PVREA office. The completed Certificate of Completion Form can be mailed or emailed to PVREA – delivery instructions can be found on the form.

5.7.13 **Typical Diagram for PVREA Net Meter System (less than 25kW).**



Notes:

1. The member owned disconnecting means must be visible and within 10' of the PVREA net meter socket.
2. The member owned lockable AC disconnect must be labeled "Generation AC Disconnect" with a permanent stamped or engraved placard.
3. The member owned lockable AC disconnect and/or placard must be within 10' and visible from the PVREA net meter.

DESIGN LIMITS:			NET METERING ONE-LINE (<25kW GENERATION)	
>25kW Member Owned Generation.			POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	NET METER ONE-LINE
DATE: 10/16/2024	CHKD: RBP	APPVD: TF		

5.8 Interconnection Request, Level II (25kW to 2MW) and Level III (greater than 2 MW).

5.8.1 The requester must review the PVREA Interconnection Procedures & Guidelines.

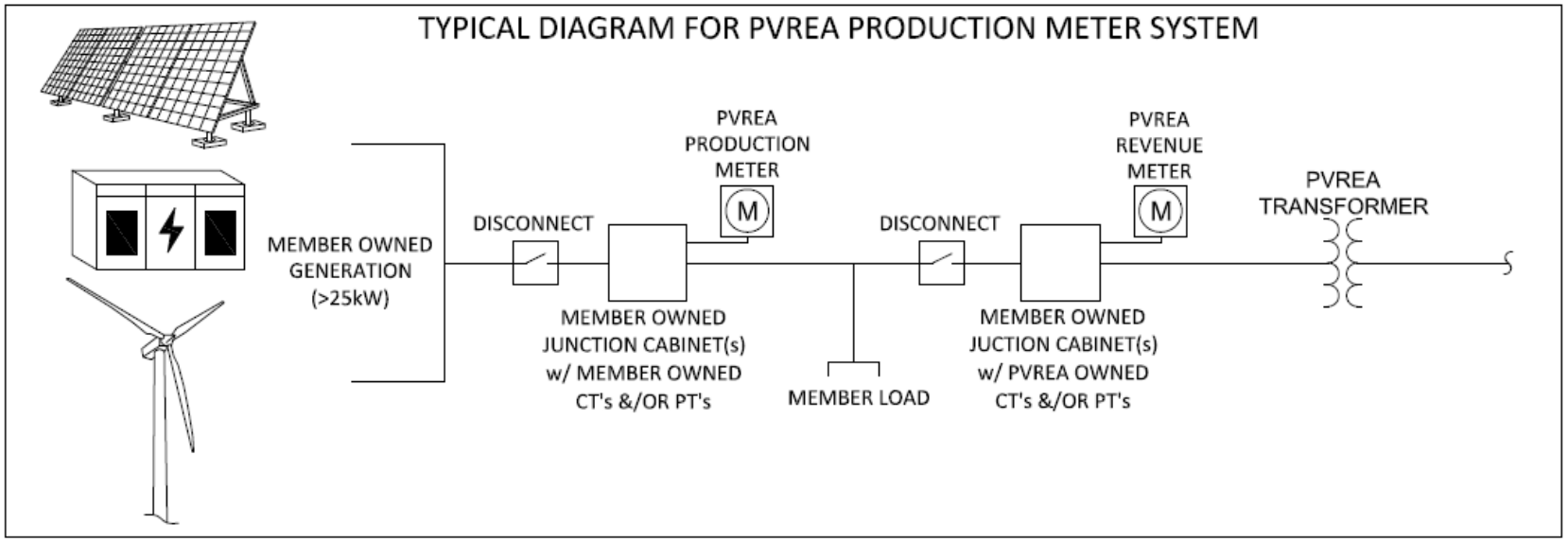
5.8.2 The requester should submit the Pre-Application Report Request with the nonrefundable application fee. Submit all application fees. Once the application and fee has been submitted, PVREA will evaluate project.

5.8.3 PVREA will complete a timely review of the application under the specified parameters. Additional analysis, at the expense of the applicant, may be required including a Feasibility Study Agreement and/or System Impacts Study Agreement.

5.8.4 If the application is approved, PVREA will provide an executed Interconnection Agreement.

5.8.5 Following the installation and electrical inspection, the member must submit the Certificate of Completion Form and PVREA will inspect the system while installing any necessary metering or other equipment.

5.8.6 **Typical Diagram for PVREA Production Meter System (greater than 25kW).**



Notes:

Current Transformer (CT)
Potential Transformer (PT)

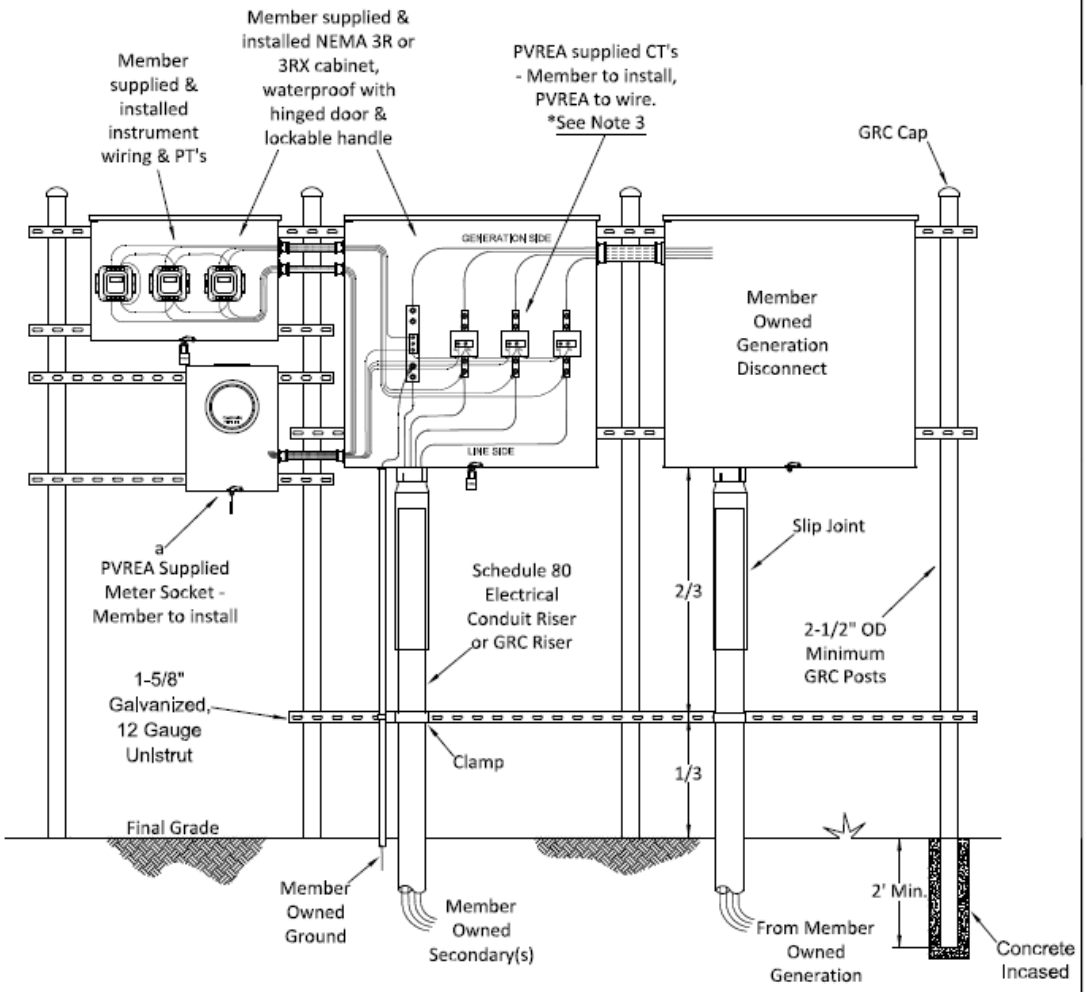
DESIGN LIMITS: >25kW Member Owned Generation			PRODUCTION METER ASSEMBLY & INSTALLATION GUIDELINES (>25kW GENERATION)	
DATE: 3/25/2025	CHKD: RBP	APPVD: TER	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	UQ3.13AP

5.8.7 Three-Phase, Production Meter Assembly (greater than 25kW), 277/480V, Instrument rated meter, with CT's and PT's.

TYPICAL CT/PT PRODUCTION METER ASSEMBLY INSTALLATION

Notes:

1. This meter assembly installation may be installed on a building without supporting posts.
2. The meter assembly illustration is "Typical" and may vary depending on the installation circumstances.
3. Member to supply and install CT's and PT's on a member owned production meter assembly. CT polarity dot to face line side
4. All CT and PT installations must be approved by PVREA Engineering.
5. The number of conduits and service conductors may vary depending on the size of the generation. Refer to *Poudre Valley REA Member Owned Secondary Service Conductor Specifications and Installation Guidelines* for installation standards.
6. The meter assembly installation must meet all PVREA specifications and all NESC, NEC and State and local rules and regulations.
7. The entire meter assembly shall be located in a readily accessible, unobstructed area and shall not be installed behind fences or in a secured area.
8. There shall be a minimum of a 5' clear working space area in front and to the sides of the meter assembly.
9. Member to supply and install ground wire and ground rod or ufer ground wire. The ground wire shall be continuous from the meter assembly to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and attached.
10. All clearances must meet PVREA specifications and all NESC, NEC, and State and Local rules and regulations.
11. All Member, Builder, or Electrical Contractor furnished items shall be installed and maintained by the Member or the Member's authorized agent.
12. PVREA will set a meter after the installation has been inspected and received by PVREA from the proper jurisdictional authority.



ITEM	MATERIAL	QTY	CODE	ITEM	MATERIAL	QTY	CODE
a	Socket, 13 Terminal Wired W/A	1	6065				

DESIGN LIMITS:

>25kW Member Owned Generation

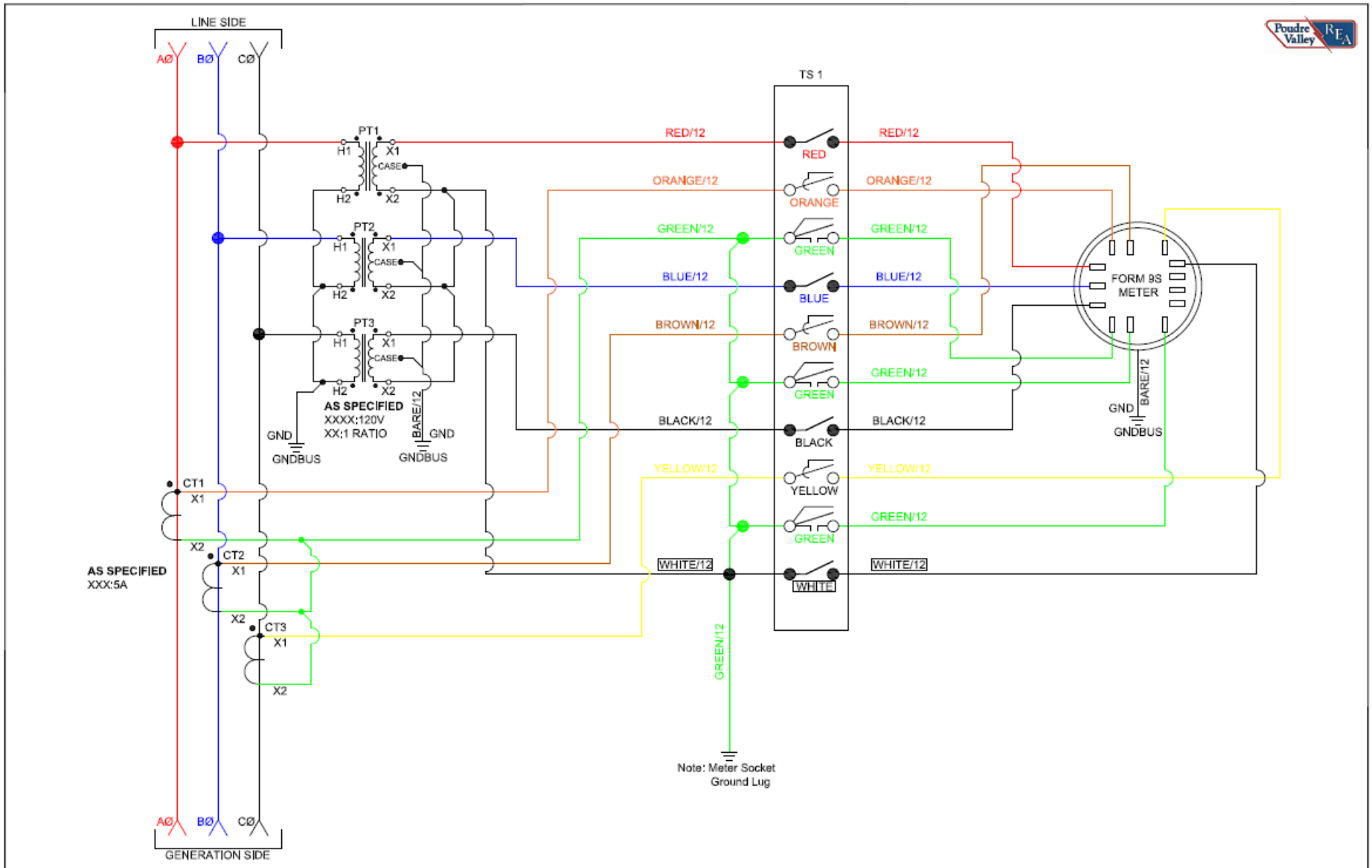
PRODUCTION METER ASSEMBLY & INSTALLATION GUIDELINES (>25kW GENERATION), 277/480V

DATE: 3/25/2025 | CHKD: RBP | APPVD: TER

POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

UQ3.13AP

5.8.8 **PVREA Secondary CT/PT – 9S Production Meter Schematic.**



General Notes:
1. Wire colors shown as actual
2. Wire Thermoplastic High Heat-Resistant Nylon (THHN)
3. Test switch color and configuration shown as actual

DATE: 5/8/2023	CHKD: RBP	APPVD: TER

SECONDARY CT/PT - 9S PRODUCTION METER SCHEMATIC

POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

9S METER SCHEMATIC

6 Existing Service Upgrades

6.1 Existing Service Upgrades.

6.1.1 Existing service upgrades are considered Small Scope Projects. Refer to "PVREA Engineering and Construction Guidelines" section for approximate project timelines.

6.1.2 Depending on the size of the service upgrade, the existing rate schedule may need to be changed. PVREA's Rules and Regulations, Bylaws, Rates, and Terms of Service can be found on PVREA's website. These documents can also be obtained at the PVREA office.

6.1.3 PVREA Engineering Department must be contacted prior to any work being done on any existing electrical service upgrade. PVREA owns the distribution facilities up to the metering point. Absolutely no PVREA equipment may be replaced, removed, or upgraded without prior PVREA notification and permission. PVREA may make an investment in the cost of a service upgrade.

6.1.4 PVREA's standard electric service size is 200A. PVREA typically invests in upgrades from 100A to 200A service. For details on upgrade costs and available credits, please contact PVREA.

6.1.5 Upgrades are to a 200A or greater.

6.1.6 If the existing service to be upgraded is 100A, PVREA will typically make the same investment as PVREA will for a 200A service upgrade. The cost difference for service upgrades larger than 200A shall be the responsibility of the member. Inquire with the PVREA regarding service upgrade costs and credits.

- If the existing service to be upgraded is 200A or larger, the full cost of the service upgrade shall be the responsibility of the member.

6.1.7 Existing Service Upgrades Process.

- Member/electrician/contractor must contact PVREA Engineering Department.
- PVREA Engineering Department will set up an onsite meeting with the member/electrician to review the existing service and discuss the overall upgrade process and approximate timelines.
- The member must pull a permit with the AHJ for the service upgrade.
- PVREA Engineering will create a work order, develop a design, and estimate for the upgrade.
- Member will pay all costs associated with the upgrade. After all invoices have been paid, PVREA will release the upgrade work order for construction.
- Typically, PVREA will install the new equipment and temporarily leave the old equipment connected, so that the member stays in power. (for upgrades in the same location reference section "Existing Service Upgrades in the Same Location".
- Once the new equipment is installed the member/electrician/contractor must complete all work required on the member's side of the meter.
- Following the completion of the member's equipment installation the upgraded service must be inspected and approved by the proper AHJ.

- Once PVREA has received the approved inspection from the AHJ, PVREA will coordinate the changeover to the new service with the member/electrician/contractor. Following the changeover, the old equipment will be removed.
- Following the completion of the service upgrade PVREA will close the work order.

6.1.8 Existing Service Upgrades in the Same Location.

- In a case where the new equipment needs to be placed in the same location as the existing service, PVREA will coordinate an outage with the member/electrician/contractor. The goal of an upgrade in the same location is to complete the process in one day.
- The member/electrician/contractor must coordinate with PVREA and plan a power outage to remove the old equipment and install the new equipment in the same location. The member/electrician/contractor must complete their equipment installs/upgrades, and PVREA must receive the approved inspection from the AHJ the same day (before 3:00pm, during normal business hours) to have their power restored.
- The member/electrician/contractor must closely coordinate between PVREA and the AHJ inspecting agency for upgrades in the same location. PVREA Engineering will discuss the process with the member/electrician/contractor prior to planning the outage.

7 Developments

7.1 Subdivision Request Form.

7.1.1 All developments, including single family residential subdivisions, multi-family subdivisions and complexes, apartments complexes, condominiums, and commercial/industrial, require the completion of a Subdivision Request Form. The PVREA Subdivision Request Form can be accessed on PVREA's website or at the PVREA office. The purpose of the Subdivision Request Form is to gather enough information for PVREA to better understand the development's electrical needs. Specific information is necessary for the PVREA team to make accurate and informed decisions regarding the power needs of the developer. Questions about the form may be directed to the PVREA Engineering Department. For assistance with filling out the form with the proper information, please contact a qualified electrical contractor, electrical engineer or consultant.

7.2 System Impact Studies.

7.2.1 Load additions such as developments and commercial or industrial additions to the PVREA distribution system may require a System Impact Study depending on multiple factors, including but not limited to kW demand, the area where load is being added, the type of load, and scope of project. Additional information may be required by PVREA Engineering to perform a System Impact Study.

7.2.2 A System Impact Study fee will be assessed and must be paid in full prior to commencement of the study.

7.2.3 Additional information referenced in the following section “Supporting Documentation” may be required for your project. PVREA will not begin a study without the proper Supporting Documentation and will be put on hold if additional Supporting Documentation or clarification is required to complete the System Impact Study.

7.2.4 Projects requiring a System Impact Study will enter into a queue after PVREA has determined all necessary Supporting Documentation has been submitted and approved by PVREA Engineering. System Impact Studies entered in the queue are completed using a first-in first-out manner.

7.2.5 An Official Response Letter will be provided for every System Impact Study. The Official Response Letter will outline estimated costs, terms and conditions, and a rough timeline for the project.

7.2.6 The Official Response Letter will have a Validity Period. If the Validity Period lapses without payment in full, a re-study will be required with additional fees and will result in the project being reset in the queue.

7.2.7 System Impact Study confirmation requires an official written response indicating the intent to proceed with the project and meet all PVREA requirements as stated in the Official Response Letter. A written response is required within the Validity Period as well as payment in full as stated in the Official Response Letter.

7.3 System Impact Study Supporting Documentation.

7.3.1 Supporting Documentation will assist PVREA in understanding the nature of your project and how to plan for it.

7.3.2 Large loads will require a Large Load Inquiry Form to be filled out. This form indicates who the project is being completed for, a preferred point of contact, and where the project is located. The PVREA Large Load Inquiry Form can be accessed on PVREA’s website or at the PVREA office.

7.3.3 Subdivision Request Forms are typically filled out by developers to begin the process of getting power ready for their development. PVREA will require enough information to determine impacts to the system whether the development is residential, commercial, mixed, or industrial. The Subdivision Request Form will require much of the same information as a Large Load Inquiry Form. Residential developments will also require the number of lots and/or units, unit square footage, and the type of heating and water heating at a minimum. Additional information for residential, commercial and industrial developments will also require the load type and anticipated tenant (i.e. office space, fast food, retail, etc.), one-line diagrams, panel schedules, and equipment specifications may also be requested.

7.3.4 A Motor Data Request Form will be required for all motors rated at 10 HP or larger. The PVREA Motor Data Request Form can be accessed on PVREA’s website or at the PVREA office.

7.3.5 Additional equipment specifications may be required for a more thorough evaluation if it is to impact PVREA’s distribution system.

7.3.6 Subdivision plats should be provided for subdivisions. Plats help identify key locations where equipment must be placed. PVREA will utilize this information along with the System Impact Study results to design the distribution system. For the purposes of a study, a finalized plat is not required.

7.3.7 Site plans may be useful for the initial system impact study. Site plans may aid in determining where to extend the distribution power from to meet both current and future needs.

7.3.8 A Phasing Plan (e.g., Subdivision Phase I, Phase II, etc.) is required. Phasing plans indicate timelines for project and distribution system infrastructure. Phasing plans should be organized by quarter and/or year, along with the amount of load, lots, units, etc. being added in each phase of the plan.

Example "Phasing A" below shows a load schedule for an industrial development, along with its phasing plan. Example "Phasing B" shows the same forecast as Example "Phasing A" utilizing a demand factor. If a demand factor is provided, PVREA will validate the number provided. An alternative demand factor may or may not be utilized for the purpose of the study if the engineer completing the study deems it appropriate. Example "Phasing C" below indicates a phasing plan for a residential development.

Example Phasing A – NEC connected kW values over time					
	2025	**2026**	**2027**	**2028**	**2029**
Initial NEC Connected kW					
Additional NEC Connected kW					
Total NEC Connected kW					

Example Phase B – kW demand values over time					
	2025	**2026**	**2027**	**2028**	**2029**
Initial kW Demand					
Additional kW Demand					
Total kW Demand					

Example Phasing C – Development housing buildout plans					
	2025	**2026**	**2027**	**2028**	**2029**
1500 – 2000 sq ft. homes					
2500 – 3200 sq. ft. homes					

7.4 Transmission Studies.

7.4.1 Large load additions requiring a transmission study, due to the size, scope and complexity, may require a Transmission Study.

7.4.2 Transmission Studies require an upfront payment. The size and complexity of Transmission Studies can vary greatly, the Transmission Study fee will be determined by PVREA.

7.5 Arc Flash Studies.

7.5.1 PVREA does not provide Arc Flash Studies or calculations to members/electricians/developers. Upon a formal request, PVREA will provide the

appropriate information for Arc Flash Study when the member is supplied from PVREA primary distribution facilities.

7.5.2 PVREA recommends the use of the infinite bus method on secondary services. PVREA may provide transformer size, voltage, and typical impedance for the transformer sizes.

7.6 Final Plat.

7.6.1 In addition to the Subdivision Request Form, PVREA requires an approved copy of the Final Plat map for the development. A subdivision or development plat is a survey of the property that exhibits parcel lot lines, utility easements, tracts, units or other parcels of land, that is acknowledged by the landowner, and which requires acceptance by the AHJ.

The Final Plat map also serves as a legal description on a deed, showing the divisions of land into lots, blocks, and other areas. Final lot lines and utility easements on the plat map must be established and approved by PVREA prior to any electrical infrastructure design. The utility easements must be adequately sized (minimum 10' wide underground easement) for PVREA equipment and associated electrical facilities. The easements must also be large enough to accommodate other utilities such as gas and water. PVREA will not install facilities in back lot utility easements.

Platted utility easements are required everywhere PVREA facilities are located. Where PVREA facilities are not covered by a platted utility easement, the developer must sign a PVREA standard utility easement. Refer to section "Easements" for further information.

7.6.2 An address list approved and finalized by the AHJ for the development must be submitted to PVREA prior to any electrical services being energized, including any temporary construction pedestals, subdivision power sources, or streetlights.

7.7 Development Design – Preliminary Design.

7.7.1 Developments are generally considered large projects. Refer to section "Typical Construction Projects and Timelines" regarding approximate timelines for developments.

7.7.2 Preliminary Design – Following the approval of a PVREA Subdivision Request Form and/or System Impact Study and other required documentation if needed, PVREA will begin the preliminary design phase.

7.7.3 For preliminary design, PVREA will require civil engineering drawings for the development. The drawings must be in AutoCAD (dwg) format. The drawings shall include, but are not limited to grading, lot lines, easement lines, curbs, sidewalks, fire hydrants, drainages, landscaping, and other utilities.

7.7.4 Preliminary design consists of the general layout of the power lines and other associated equipment which includes, but is not limited to transformers, switchgears, and cabinets.

7.7.5 Required power source locations (e.g., sprinkler power) shall be provided by the developer and submitted to PVREA during preliminary design.

7.7.6 PVREA will determine if the developer is required to install all or some of their own conduit. Refer to section "Developer Dug Trenches and Conduit" for specifics on developer installed conduit and trenching.

7.7.7 Long lead items (e.g., switchgear, transformers, etc.) will be invoiced to the developer and ordered after receipt of payment during preliminary design.

7.7.8 Required PVREA permits and/or agreements will be identified during preliminary design.

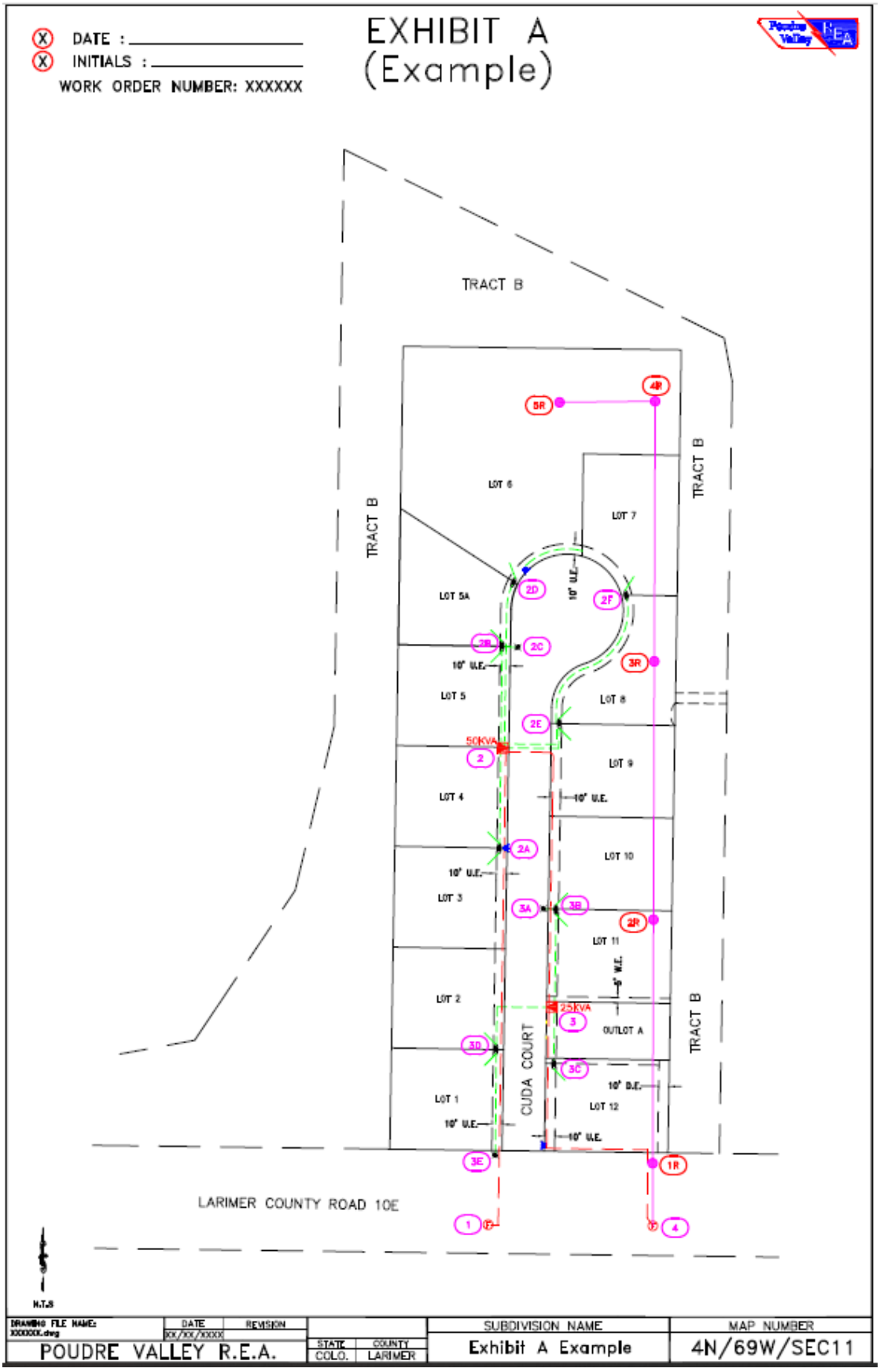
7.7.9 If required, easements will be identified during preliminary design.

7.7.10 The coordination of communication utilities (joint use or joint trenching) will be identified during preliminary design.

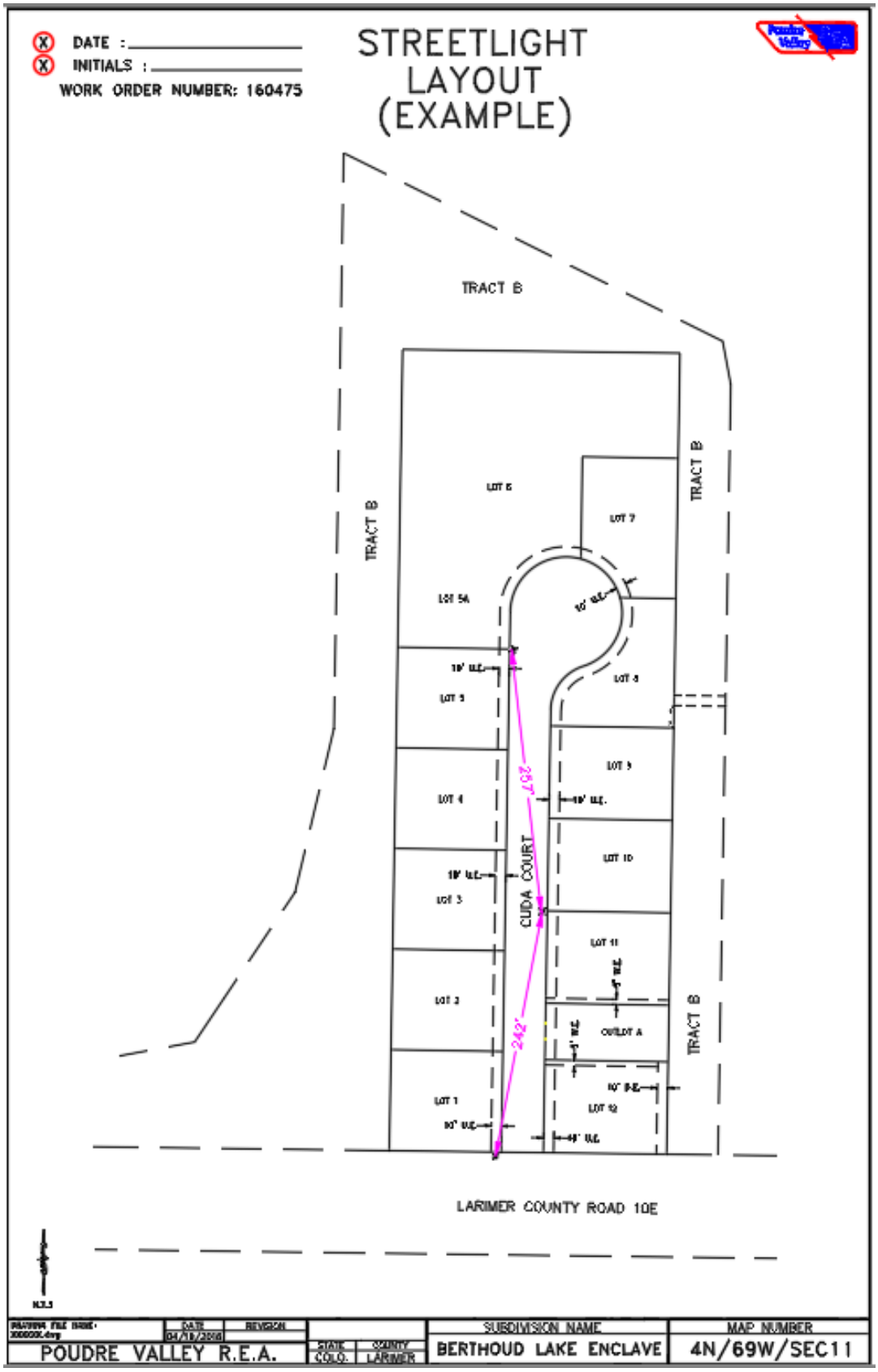
7.7.10.1 The developer shall work with joint use utilities regarding the location of joint use power sources during the preliminary design phase.

7.7.11 A preliminary cost estimate will be created by PVREA Engineering.

7.7.12 Developer approval of the preliminary design (PVREA Exhibit A) by the developer will confirm the final design.

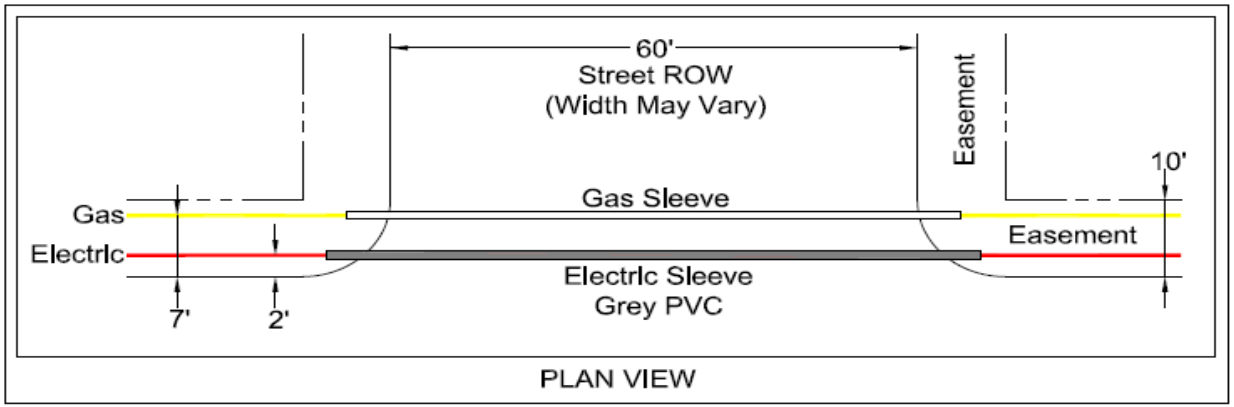


7.7.13 In the preliminary design phase, a proposed Streetlight Layout will be requested from the developer. If the developer does not have a Streetlight Layout PVREA may suggest a Streetlight Layout. Refer to section “Lighting” for further information.

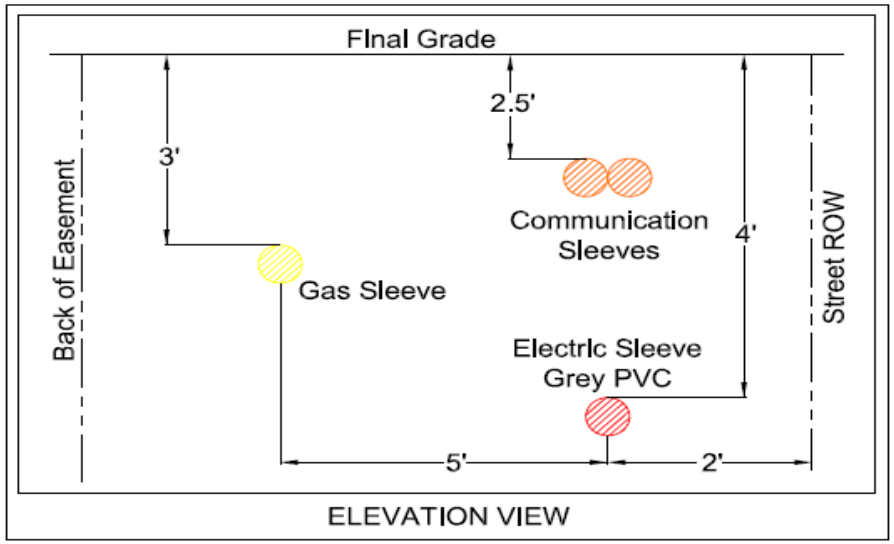


7.7.14 A Sleeving Plan (conduit street and sidewalk crossings) will be created by PVREA and submitted to the developer during the preliminary design phase.

BASIC STREET SLEEVE LAYOUT



PLAN VIEW

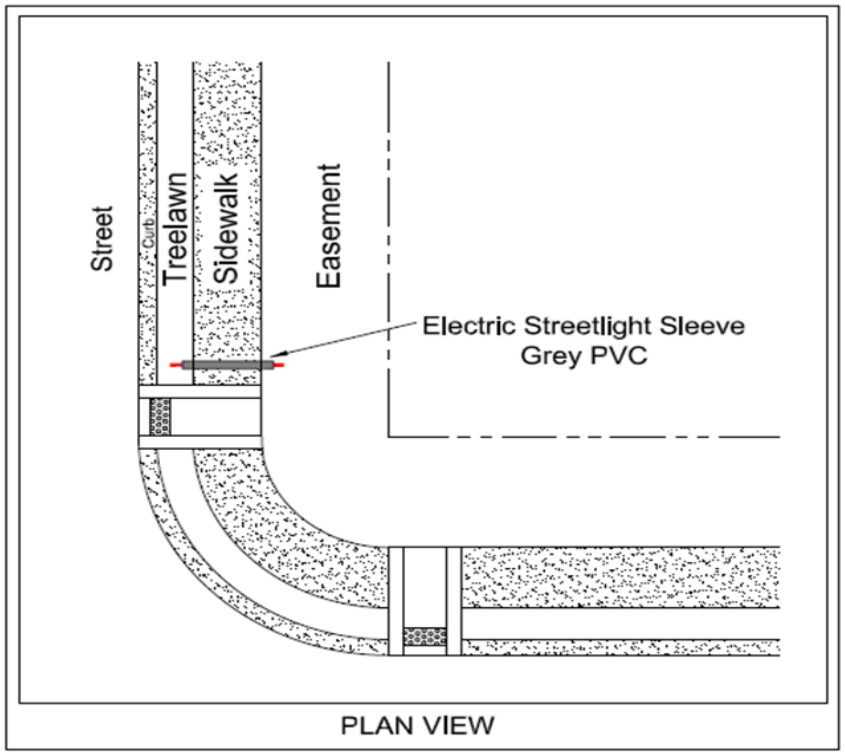


ELEVATION VIEW

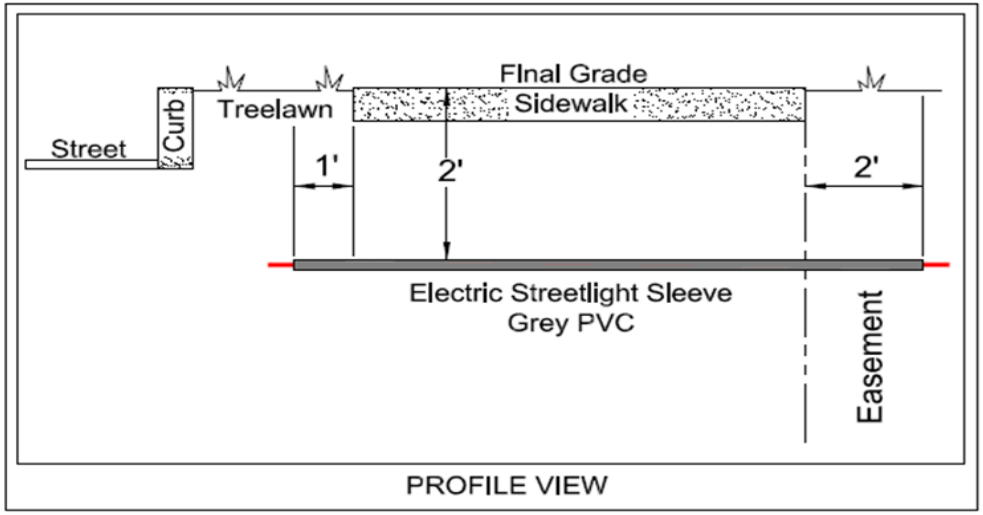
NOT TO SCALE

DESIGN LIMITS:			BASIC SLEEVE LAYOUT INSTALLATION GUIDE
DATE: 9/8/2021	CHKD: RBP	APPVD: MO	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

BASIC SIDEWALK STREETLIGHT SLEEVE LAYOUT



PLAN VIEW



PROFILE VIEW

NOT TO SCALE

DESIGN LIMITS:			BASIC SIDEWALK STREETLIGHT SLEEVE LAYOUT INSTALLATION GUIDE
DATE: 9/8/2021	CHKD: RBP	APPVD: MO	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION

7.8 Development – Final Design.

7.8.1 The Streetlight Layout must be approved by the AHJ during final design.

7.8.2 Any additional conduit sleeves required will be added to the preliminary Sleeving Plan.

7.8.3 If required, easements will be created and submitted for execution.

7.8.4 All PVREA contracts must be fully executed during final design.

7.8.5 Any joint use and/or joint trenching will be confirmed during the final design phase.

7.8.6 The final cost estimate will be invoiced to the developer.

7.8.7 Once the developer has paid in full the final cost estimate invoice, PVREA will order all required equipment and materials, and the project will be scheduled for construction.

7.8.8 All PVREA required permits and/or agreements will be submitted.

7.9 Development – Construction.

7.9.1 PVREA will begin scheduling construction for the development once all of the following have been met:

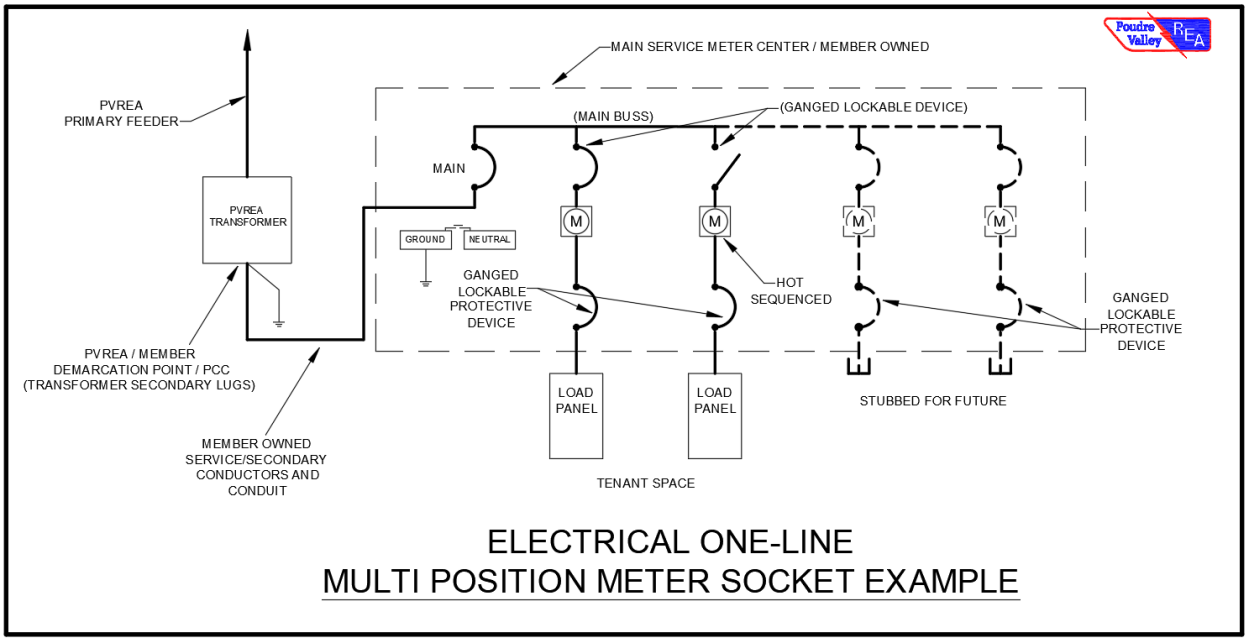
- All materials have been received.
- All easements have been executed, and all required PVREA permits and/or agreements are approved.
- All property pins must be in place. All lots should be numbered, marked and/or staked.
- Final grade must be established at all PVREA equipment and/or trenching locations.
- The curb, gutter, streets, sidewalks, etc. must be in place.
    - Changes to the physical development (e.g., sidewalk reroutes) following the approval of the PVREA "Exhibit A" that adversely affect PVREA construction may result in additional charges to the developer.
    - All street and/or sidewalk conduit sleeves must be in place.
        - Street and/or sidewalk sleeves that are installed incorrectly and require additional work by PVREA may result in additional charges to the developer.

7.9.2 A Pre-Construction meeting is required between PVREA, the developer, construction contractors, joint use utility associates and contractors, and other affected parties.

7.9.3 Any joint use and/or joint trenching will be coordinated during the Pre-Construction meeting.

7.10 Gang Metering.

Multi-family developments generally require gang metering. Gang metering, also known as Multiple-Position Meter Sockets, are used in electrical panels for multi-family and commercial applications that require more than one meter at one single location. Gang Metering is designed to meet the needs of various metering applications in residential, commercial, and industrial facilities. Gang Metering requires the installation of member-owned and installed secondary/service conductors. Refer to "Member Owned Secondary and Service Conductors" for specific installation details.



Commercial gang meter electrical one-line (Multi-Position Meter Commercial (MPMC) example.

7.10.1 **All gang metering must meet the following specifications:**

- The member/electrician/contractor shall supply and install main disconnect and the multi-meter panel board assembly. All meters in the panel board must be hot sequence metering required. If the NEC “6 Handle Rule” applies, there must be one main disconnect prior to the meters.
- Each individual meter socket must have a protected (fuse/breaker) disconnecting means on the load side of the meter and be (cold or hot sequenced).
- Each individual meter socket must be labeled with an engraved or stamped metal tag, riveted to the panel denoting the corresponding unit. Tag to be installed on the breaker side of the panel. The label shall be located next to the breaker.
- The individual dwelling units within the building must have permanent unit number labels installed on the doors or the unit entry area.
- All meter sockets must be equipped with a lever by-pass switch (No Horn By-passes).

7.10.2 The member/electrician/contractor shall supply and install all service conduit(s) and conductor(s). The member/electrician/contractor is responsible for all service conductor terminations (transformer & meter) as well as phase rotation. The number of conduits and service conductors may vary depending on the size of the service. Refer to “Member Owned Secondary and Service Conductors” for specific installation details.

7.10.3 Typical transformer fault current data is available on PVREA’s website or at PVREA’s office.

7.10.3.1 The ganged meter equipment must be rated for the maximum Ampere Interrupt Capacity or Available Interrupt Rating (AIC).

7.10.4 The entire gang meter assembly shall be located in a readily accessible, unobstructed area, and shall not be installed behind fences or in a secured area.

7.10.5 Working clearances in front and to the sides of the meter assembly must meet all NEC and NESC requirements.

7.10.6 The member/electrician/contractor will supply and install the ground wire and ground rod or Ufer Ground. The ground wire shall be continuous from the meter socket to an approved grounding electrode system in compliance with NEC. The ground wire must be properly supported and attached to the building.

7.10.7 All clearances (e.g., gas, windows, window wells) must meet PVREA specifications and all NESC, NEC, and AHJ rules and regulations.

7.10.8 The meter assembly installation must meet all PVREA specifications and all NESC, NEC, and all AHJ rules and regulations.

7.10.9 All member/electrician/contractor furnished equipment and facilities shall be installed and maintained by the member or the member's authorized agent.

7.11 Member-Owned Secondary/Service Conductors.

7.11.1 The following specifications and guidelines pertain to member-owned secondary/service conductors:

- Member-owned gang meter sockets on a building, rack, or structure.
- Individual service meter sockets out of a PVREA owned 3-phase pad mount transformer with PVREA supplied CT's and/or PT's.

7.11.2 All gang metering and associated equipment shall be supplied and installed by the member/electrician/contractor. The metering shall be located in an accessible area on the building or structure. The demarcation point between PVREA ownership and member ownership is at the transformer secondary lugs. PVREA maintains ownership of the meter(s).

7.11.3 On individual, underground, 3-phase, CT/PT instrument rated services PVREA will supply and install the CT's, PT's and meter socket. PVREA will bolt the individual meter socket to the side of the PVREA supplied pad mount transformer. The CT's will be located on the transformer secondary bushings inside the transformer. The PT's (if required) will be bolted inside the transformer secondary compartment. The demarcation point between PVREA ownership and member ownership is at the transformer secondary lugs. PVREA maintains ownership of the meter socket, CT's, and PT's.

7.11.4 All member-owned associated equipment, and the required secondary/service conductors shall be supplied and installed by the member/electrician/contractor. The member/electrician/contractor is fully responsible for indicating the correct size and number of secondary service conductors out of the transformer. PVREA will install the proper size terminal blocks according to the secondary conductor size and quantity up to the transformer limitations.

7.11.5 The member/electrician/contractor shall furnish, install, and terminate the secondary/service conductors according to PVREA's specifications. The member is responsible for connecting all secondary/service conductors to any form of member-owned disconnecting device(s) and/or equipment. The member/electrician/contractor is also responsible for the secondary/service terminations at the PVREA power transformer. In the case that there are existing secondaries already connected to the transformer PVREA may decide to terminate the member-owned secondaries. This may be done to avoid power interruptions to the existing members. Under these circumstances the member/electrician/contractor will be required to coordinate the installation and termination of their secondary/service conductors with PVREA Engineering and/or Operations Department.

7.11.5.1 Multiple site visits by PVREA to assist with the member's secondary connections at the transformer will require additional charges.

7.11.6 The member/electrician/contractor is fully responsible for the correct secondary phasing and rotation. When parallel service conductors are run, conductors of the same phase must be identified as such. The member-owned service conductors shall be marked (tagged) at the transformer and at the member's service equipment entrance. The member service cables are to be installed as a set per conduit (i.e., 3 phase service A, B, C, N in one conduit) and marked accordingly for cable identification. All cable color coding must meet NEC specifications. The cable color identity is based on voltage, phase, neutral, and ground.

The identity colors shall be as follows:

Voltage	Phase A	Phase B	Phase C	Neutral	Ground
120/208/240V	**Black**	**Red**	**Blue**	Grey or **White**	**Green**, **Green w/ Yellow Stripe**, or **Bare**
277/480V	**Brown**	**Orange**	**Yellow**		

Color coded 277/480V phasing example with colored secondary conductor installation.

7.11.7 The proper conductor length is the responsibility of the member. The member/electrician/contractor installed underground service conductors shall be of sufficient length to allow the member to complete the final electrical connections. The member/electrician/contractor shall wire brush all conductors, apply a non-grit type inhibitor, and terminate them to the manufacturer's specifications. The member /electrician/contractor shall verify and torque all secondary/service connections to the manufacturer's specifications on all member owned and PVREA owned equipment.

7.11.8 The class and type of service being rendered determines the number and size of secondar/service conductors. The secondary/service conductors shall be a continuous length of properly sized and insulated conductors prescribed by the NEC and/or the AHJ. Refer to the NEC for requirements. For loads where parallel or multi-run phase and neutral service entrance conductors are installed, the member shall consult with the PVREA Engineering early in the design phase. Typical PVREA secondary/service conductor limitations are as follows:

Maximum Conductor Size and # of Runs		
3-Phase Transformer KVA	**Max Conductor Size**	**# of Runs**
30-750	500MCM	6 to 7
1000≤	750MCM	7 to 14

7.11.9 In the case that the member/electrician/contractor specifies the incorrect secondary size and/or quantity during the design/engineering phase the member will be responsible for the additional costs associated with the replacement of the transformer secondary terminal blocks and trips to remedy the issue.

7.11.10 The member will own and maintain the secondary/service conductors after installation as well as all necessary non-electrical facilities required for the underground conductor installation. These facilities include, but are not limited to; trenching, backfill, conduits, ducts, concrete slabs, handholes, etc. The member/electrician/contractor shall coordinate with the PVREA Operations Department for any connection, disconnection and/or maintenance of member-owned secondary/service conductors.

8 Underground Construction Guidelines

8.1 Member Dug Trenches and Conduit.

8.1.1 When possible, PVREA trenches and installs all its own primary (primary voltage) underground conduit and equipment. In specific situations where it is more practical for the member to install the primary trench (Member Dug Trenches), conduit, and equipment pads/vaults, PVREA permits such installations.

8.1.2 Member Dug Trenches will only be considered in mountainous or very rocky areas where PVREA's contactor is not able to dig the trench without major difficulties. However, all Member Dug Trenches and equipment installations must receive approval from PVREA Engineering.

8.1.3 When a Member Dug Trench is approved, the PVREA service contract will indicate that the member is responsible for all trenching requirements, warning tape, backfill, and future settling of the trench.

8.1.4 All work involving Member Dug Trenches require a pre-construction meeting with the member/electrician/developer, PVREA Engineering and the PVREA Inspector.

8.1.5 PVREA will supply the member with PVREA trenching requirements prior to any trenching.

8.1.6 Any joint use trenching and conduit must meet PVREA trenching requirements.

8.1.7 The Member Dug Trenches and conduit installation must be inspected and approved, prior to backfill, by PVREA.

8.1.8 PVREA warning tape must be installed by the member. Backfilled trenches without warning tape installation will be required to be resolved prior to PVREA construction.

8.1.9 PVREA may supply the member/electrician/contractor with the primary conduit and sweeps (elbows). The member/electrician/contractor is responsible for all costs associated with PVREA supplied primary conduit and sweeps. The member/electrician/contractor may supply their own primary conduit and sweeps if the conduit/sweeps are comparable (e.g., Schedule 40, Grey PVC) to PVREA standards. PVREA will provide, the member/electrician/contractor, PVREA warning tape.

8.1.10 The member/electrician/contractor shall stop trenching 5' short of any underground energized equipment. The member shall install a marker conduit/post above grade at the end of the conduit stub out.

8.1.11 The member/electrician/contractor may stub a primary conduit sweep(s) at the proposed primary riser pole(s).

8.1.12 The member/electrician/contractor is responsible for backfilling the primary conduit with approved backfill following an approved PVREA inspection. If the member/electrician/contractor backfills the trench prior to a PVREA inspection the member/electrician/contractor must provide proof of depth (pothole conduit) as required by PVREA.

8.1.13 Following the conduit installation, PVREA will "proof" the conduit/duct system. Proofing conduit is the act of installing pulling rope into the conduit system. The conduit system will "proof" if the pulling rope is installed without any obstruction within the conduit. Obstructions within the conduit system must be dug up and repaired. If proofing fails, the member/electrician/contractor is responsible for all repairs as required. Multiple PVREA trips for improper trench and/or conduit may result in additional charges.

8.1.14 The member/electrician/contractor must coordinate all joint use trenching (e.g., Lumen). Refer to section "Joint Use" for more information.

8.1.15 Joint use is allowed with communications utilities and the member's private electric or communication line. All lines must be separated by a minimum of 12" to PVREA lines. Gas, propane, water, and/or sewer lines shall not be in a joint trench with PVREA lines.

8.2 Developer Dug Trenches and Conduit.

8.2.1 When possible, PVREA trenches and installs its own primary underground conduit and equipment. In specific situations where it is more practical for the developer to install the primary trench (Developer Dug Trench), conduit, and equipment pads/vaults, PVREA permits such installations.

8.2.2 Developer Dug Trenches will be considered in congested areas such as apartment complexes, condominiums, and townhome developments. Developer dug trenches will also be considered in mountainous or very rocky areas where the PVREA contactor is not able to dig the trench without major difficulties. However, all developer dug primary trenches and equipment installations must receive approval from PVREA Engineering.

8.2.3 When a Developer Dug Trench is approved, the PVREA service contract will indicate the developer is responsible for all trenching requirements, backfill, and future settling of the trench.

8.2.4 All work orders involving Developer Dug Trenches require a preconstruction meeting with the developer, PVREA Engineer and the PVREA Inspector.

8.2.5 PVREA will supply the developer with PVREA trenching requirements and route prior to any trenching.

8.2.6 Any joint use trenching and conduit must meet PVREA trenching requirements. Refer to section "Joint Use" for further information.

8.2.7 The Developer Dug Trenches and conduit installation must be inspected and approved, prior to backfill, by a PVREA inspector, contract inspector and/or a PVREA Engineer.

8.2.8 PVREA warning tape must be installed by the developer according to PVREA trench detail and specifications. Backfilled trenches without warning tape installation will be required to be corrected prior to PVREA construction.

8.2.9 PVREA may supply the developer with primary conduit and sweeps. The developer may provide their own primary conduit and sweeps if the conduit and sweeps are comparable (e.g., Schedule 40, Grey PVC) to PVREA standards. The developer is responsible for all costs associated with PVREA supplied conduit and sweeps. The developer is responsible for supplying all secondary conduits and sweeps. PVREA will provide and the developer will install ground rods and PVREA warning tape for PVREA owned conduit. All developer supplied materials must be pre-approved by the PVREA Engineer or PVREA Inspector.

8.2.10 The Developer must stop trenching 5' short of any underground energized equipment. The Developer must install a conduit stub out marker at the end of the conduit. All stub outs must be capped and marked after installation to prevent debris from entering the conduit.

8.2.11 The developer may stub a primary conduit sweep(s) at the proposed primary riser pole(s).

8.2.12 The developer is to install all primary sweeps and ground rods at new equipment locations. Vertical conduit extensions should be added to the sweeps to bring the conduit top a minimum of 12" above final grade. All stub outs must be capped and marked after installation to prevent debris from entering the conduit.

8.2.13 PVREA will supply and install all primary equipment pads.

8.2.14 The developer will supply all secondary conduit sweeps for multi-family or gang metering installations. PVREA will install all secondary conduit and sweeps at existing energized equipment locations.

8.2.15 The developer is responsible for the installation of all street, sidewalk, and streetlight sleeves. Refer to section "Developments/Preliminary Design" for specifics.

8.2.16 The developer shall notify PVREA prior to the installation of any sidewalks, driveways, etc. that will conflict with any conduit installations. The developer is responsible for any required concrete cuts (e.g., sidewalks) if installed prior to any conduit installations.

8.2.17 The developer is to backfill the primary conduit with approved backfill following an approved PVREA inspection. If the developer backfills the trench prior to a PVREA inspection the developer must provide proof of depth (pothole conduit) as required by PVREA.

8.2.18 Following the conduit installation, PVREA will "proof" the conduit/duct system. Proofing conduit is the act of installing pulling rope into the conduit system. The conduit system will "proof" if the pulling rope is installed without any obstruction within the conduit. Obstructions within the conduit system must be dug up and repaired. If proofing fails, the developer is responsible for all repairs as required.

8.2.19 The developer must coordinate all joint use trenching (e.g., Lumen). Refer to section "Joint Use" for more information.

8.2.20 Joint use is allowed with communications utilities and the member's private electric or communication line. All lines must be separated by a minimum of 12" to PVREA lines. Gas, propane, water, and/or sewer lines shall not be in a joint trench with PVREA lines.

8.3 PVREA Warehouse Material Pickup Guidelines.

8.3.1 When a member, electrician, contractor, or developer is installing PVREA supplied materials they must follow the PVREA Warehouse Material Pickup Guidelines.

8.3.2 The PVREA warehouse yard entrance is located on the back lot (south side) of PVREA (7649 REA Parkway, Fort Collins, CO 80528) on Hathaway Lane.

8.3.3 When picking up materials, the member, electrician, contractor, or developer will be issued a Material Pickup Sheet. You must have your Material Pickup Sheet with you (hard copy or digital), and available when you pick up the material. No material will be issued without a material pickup sheet.

8.3.4 Member, electrician contractors, developer must call and/or email the PVREA Warehouse and Plant Maintenance Foreman, at least two business days in advance prior to picking up the material. If the Plant Maintenance Foreman does not answer or reply, you must leave a message with them regarding the material, your intended pickup date/time and your work order number. The work order number will be listed on the Material Pickup Sheet. You can contact the PVREA Warehouse & Plant Maintenance Foreman at 970-282-6425 and/or opswarehouse@pvrea.coop.

8.3.5 On the day of pickup, prior to picking up the material, you must call and/or email the PVREA Warehouse & Plant Maintenance Foreman again to let them know you are on your way. Once again, if the Plant Maintenance Foreman does not answer or reply, you must leave a message.

8.3.6 Material pickup hours are between 9:00am and 3:00pm, Monday through Thursday. You will not be allowed to pick up material outside of these hours.

8.3.7 If you are picking up conduit, your transport equipment must have the capability of transporting 20-foot lengths of conduit. Flatbed trailers with protruding wheel wells are not recommended. These types of trailers can damage the conduit during transport.

8.3.8 You are responsible for all material once it has left the PVREA yard.

8.4 PVREA Transformer and Pad Placement.

8.4.1 Transformer and transformer pad placements and locations may be suggested by the member/electrician/contractor. PVREA Engineering will determine the final placement and location(s) of all transformers.

8.4.2 PVREA transformers shall be installed in a 24/7 accessible area. PVREA transformers shall be placed in easily accessible locations for maintenance and repairs. PVREA transformers shall never be placed in an area that is indoors or in an area with a roof or a ceiling. Transformers shall be installed as near to the service(s) and/or streetlight(s) as practicable to keep the secondary/service conductors as short as possible.

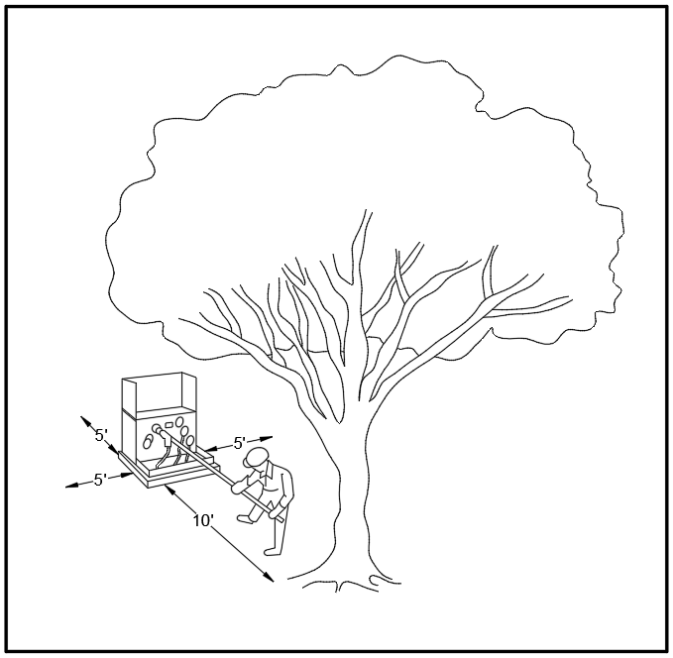
8.4.3 PVREA transformers shall not have materials stored on them, camouflaged, covered, or obstructed in any way.

8.4.4 PVREA transformers shall not be painted by the member or the public. If you notice a PVREA transformer that is open, unlocked, excessively rusted, ajar on the pad, or in need of updated paint, please contact PVREA.

8.4.5 There shall be a minimum of 5’ clearance from any object on both sides and the back of transformer pads. The front of the transformer must have a minimum clearance of 10’.

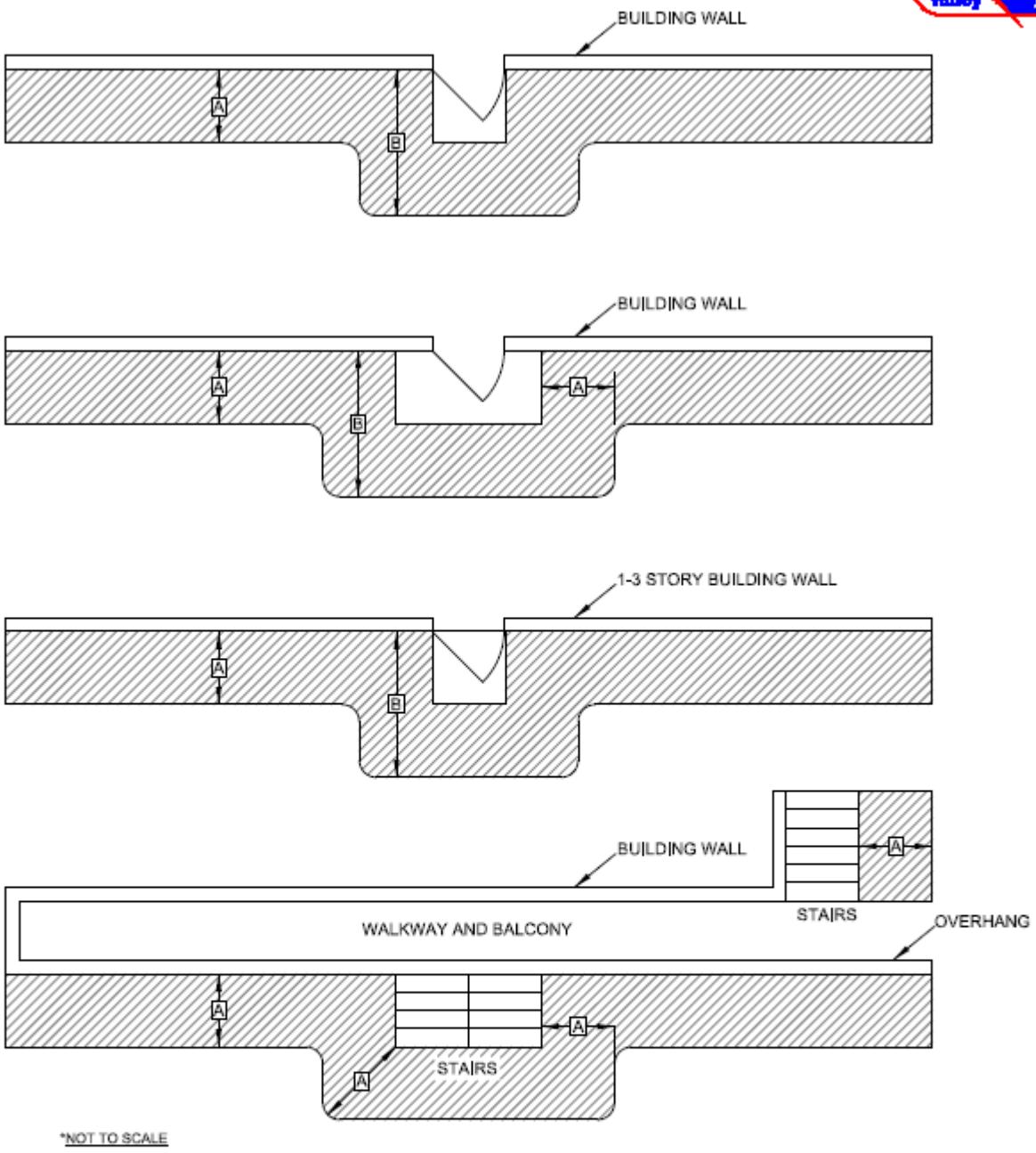
8.4.6 The area fronting the transformer shall be flat, even ground that is free of rocks and debris.

8.4.7 There shall be no landscaping plants, bushes, or trees within the clearance area.



8.4.8 Transformers shall be located in a location that meets and/or exceeds all NESC required clearance codes from buildings, structures, walls, eves, etc.

TRANSFORMER PAD NOT ALLOWED IN HATCHED AREA



*NOT TO SCALE

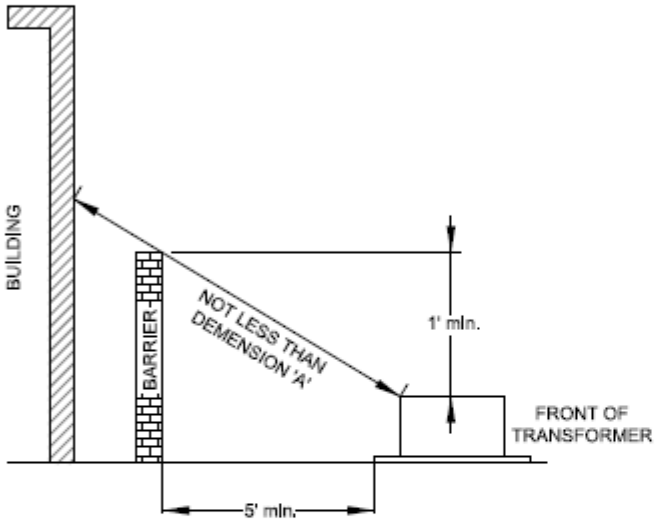
Notes;

1. If the building has an overhang and is three or less floors in height above the ground, the Dimension "A" is measured from a point below the edge of the overhang.
2. If the building has an overhang and is four or more floors in height above the ground, the Dimension "A" may be measured from the building walls.
3. Fire escapes, outside stairs, and covered walkways attached to or between buildings shall be considered as part of the building.
4. If Dimension "A" is less than shown above, a fire barrier may be installed between the transformer and the building (see PADLOC2). The barrier shall be constructed of non-combustible materials, such as reinforced concrete or concrete block. Refer to the following references for additional information: NEC NFPA 70 450-27 AND NESC SECTION 15,152 A2.
5. The front side of the transformer shall be open and accessible at all times.

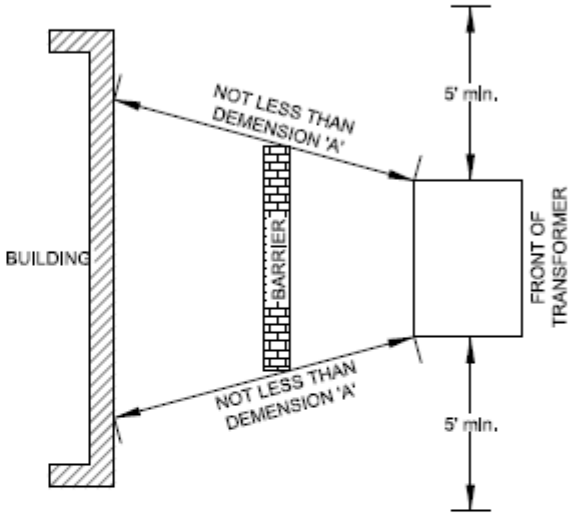
TRANSFORMER KVA	DIMENSION "A"	DIMENSION "B"
0-75	10'	14'
76-333	20'	20'
334-LARGER	30'	30'

DESIGN LIMITS			LOCATION OF PADMOUNT TRANSFORMER	
DATE: 3/25/2025	CHKD: RBP	APPVD: RBP	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	PADLOC1

SIDE VIEW



TOP VIEW



*NOT TO SCALE

CLEARANCES FROM BUILDING WALLS AND EAVES

TRANSFORMER KVA	DIMENSION 'A'	BUILDING WALL AND EAVE
0-75	10'	NOT FIRE RESISTANT
76-333	20'	NOT FIRE RESISTANT
334-LARGER	30'	NOT FIRE RESISTANT
ALL SIZES	5'	FIRE RESISTANT (8" BRICK ETC.)

Notes:
1. The barrier shall be constructed of non-combustible materials, such as reinforced concrete or concrete block. Refer to the following references for additional information: NEC NFPA 70 450-27 AND NESC SECTION 15,152 A2.
2. The front side of the transformer shall be open and accessible at all times.

DESIGN LIMITS			LOCATION OF PADMOUNT TRANSFORMERS WITH REDUCED CLEARANCE FROM BUILDINGS	
DATE: 3/25/2025	CHKD: RBP	APPVD: RBP	POUDRE VALLEY RURAL ELECTRIC ASSOCIATION	PADLOC2

9 Lighting

9.1 Yard Lighting.

9.1.1 If requested and approved by the AHJ, PVREA can supply, install, and maintain yard lighting. Individual yard lighting may not be permitted within certain city limits, HOAs, or right-of-ways.

9.1.2 Installation of a yard light is no cost to the member if there is an existing PVREA owned secondary/meter pole that the light can be installed on. Yard lights are not allowed to be installed on primary poles. If the Yard Light installation requires a new pole, the member is responsible for the total cost of construction, materials (e.g., poles, conductor, conduit, transformer, etc.) and associated labor for everything except the yard light(s) itself. These costs must be paid in advance of construction and are nonrefundable.

9.1.3 Privately owned yard lights are not allowed on PVREA poles.

9.1.4 A completed and fully executed Contract for Electric Service for the Yard Light is required before any yard light(s) can be installed or energized. Contact the PVREA Engineering Department for information and inquiries regarding yard lighting. Refer to PVREA's Rates and Terms of Service for Yard Lighting. These documents can be accessed on PVREA's website or obtained at the PVREA office.

9.1.5 The standard PVREA Yard Light is "dark sky" style light. PVREA will not install any additional type or style of light diverter or lighting shield.

9.1.6 PVREA will maintain and service the yard light(s) as long as the yard light account remains active.

9.1.7 Contact PVREA for any PVREA-owned Yard Light repairs.

9.2 Streetlighting.

9.2.1 If requested and approved by the AHJ(s), PVREA can supply, install, and maintain streetlighting. A PVREA Streetlight Layout must be approved by the AHJ(s). Refer to section "Developments" for more information.

9.2.2 The total cost of all streetlighting material, including the pole, light arm, light fixture, conduit, conductor, etc. and associated labor must be paid in advance of construction and is nonrefundable.

9.2.3 A completed and fully executed Contract for Electric Service for streetlight(s) is required before any streetlight(s) can be installed or energized. Contact PVREA Engineering for information and inquiries regarding streetlighting. Refer to PVREA's Rates and Terms of Service for streetlighting. These documents can be accessed on PVREA's website or obtained at the PVREA office.

9.2.4 PVREA will maintain and service PVREA owned streetlight(s) as long as the streetlight account remains active.

9.2.4.1 Contact PVREA for any PVREA-owned streetlight repairs. A streetlight maintenance request can be made from the PVREA website.

9.2.4.2 Streetlights in the Town of Windsor are owned and maintained by the Town. Contact the Town of Windsor for streetlight maintenance requests that are within the town.

9.2.4.3 PVREA will not install any type or style of light diverter or lighting shield.

9.2.5 PVREA does not allow any attachments to streetlight pole(s). The cost of the removal of unauthorized attachments will be invoiced to the attacher.

10 Joint Use

10.1 PVREA Overhead Pole Joint Use.

10.1.1 For general joint use entities (Licensee), to attach any object(s) to a PVREA owned pole(s), the Licensee wanting to attach must have a fully executed *Pole Attachment Agreement Between Poudre Valley Rural Electric Association, Inc. and the Licensee* on file with PVREA. Inquire with PVREA for a copy of the Agreement.

- PVREA Pole Attachment Agreements may vary for different franchise agreements between PVREA and various municipalities.

10.1.2 The Licensee must submit a completed *PVREA Application for Permission to Install Attachment(s)* and all required documentation (e.g., insurance certificate).

10.1.3 Upon receipt of a completed application, PVREA will require payment of applicable application fees and may request an engineering analysis deposit.

10.1.4 Once fees are paid, PVREA will determine if "Make Ready" work is required. Make Ready is modifications to ensure pole capacity and code compliance (e.g., pole replacement, structural upgrades). PVREA will provide a cost estimate. If the Licensee proceeds, PVREA will invoice for the full cost, including labor, materials, and other associated costs.

10.1.5 Following the completion of the make ready work, PVREA will approve the Licensee's application and authorize the pole attachment(s). Installers must comply with OSHA and NESC standards.

10.1.6 PVREA will inspect attachments post-installation for compliance. Licensee must correct noncompliant attachments and may incur fees for additional inspections.

10.1.6.1 The Licensee will be billed annually based on the number of attachments at the current rate. Refer to the *Pole Attachment Agreement Between Poudre Valley Rural Electric Association, Inc. and the Licensee* for further information.

10.1.7 All unauthorized attachments will be removed by the Licensee or by PVREA at the Licensee's expense.

10.1.8 Contact PVREA for verification of pole ownership.

10.2 PVREA Underground Trench Joint Use.

10.2.1 PVREA encourages joint use trenching with communication utilities to reduce costs, minimize easement conflicts, and streamline construction. The member/contractor/developer is responsible for coordinating joint trenching on development projects. See “Underground Construction Guidelines” for details.

10.2.2 All joint trenching and conduit installations must comply with NESC and PVREA standards, including proper utility separation, conduit installation, trench depth, and backfill requirements. Non-compliance may result in safety issues or costly corrections.

10.2.3 Communication utilities (or their contractors) must be onsite during backfilling to confirm proper installation and positioning before the trench is closed.

10.2.4 A joint trencher must be present during backfilling and shading. Open trenches cannot be left overnight. If absent, PVREA will backfill without the joint trencher.

10.2.5 The initiating communication utility is responsible for all joint trenching costs related to its infrastructure. PVREA will not cover costs for non-distribution facilities.

10.2.6 PVREA does not allow joint trenching with natural gas, propane, water, or sewer.

Appendix

Poudre Valley REA (PVREA) Service Standards – Revision Form

Use this form when requesting Revisions to the Poudre Valley REA "Electrical Service Standards". Please type or print legibly.

Name: _____ Date: _____

Company/Organization: _____

Address: _____

E-mail: _____ Phone (home/business): _____

Phone (cell): _____

I seek a **Revision** for the following section(s): _____

I request the following Revision (per the attached sketch, blueprints or electronic file): _____

Explain how this practice will maintain/improve safety and/or reliability: _____
_____
_____
_____
_____

Mail to: Poudre Valley REA, Attn: Engineering Department, P.O. Box 272550, Fort Collins, Colorado 80527 or systemsengineering@pvrea.coop.

<<<<<Poudre Valley REA Internal Use Only>>>>>

Poudre Vally REA

Name: _____ Title: _____

Date Approved: _____

Name: _____ Title: _____

Date Approved: _____