

**Electrical Service Installation Guide for  
Frame-Built Structures  
(Underground Service)  
REVISED 2026**

**PURPOSE**

The purpose of these wiring diagrams is to provide standards for both the layman and experienced electrician so that the design, materials, workmanship and applications of a member's electric system will be safe, reliable and of adequate capacity. These standards are also important elements in our ability to make connection of members' wiring promptly and efficiently, and to accommodate changes and repairs whenever necessary.

**NEC AND LOCAL JURISDICTIONS**

The standards set forth in this guide are intended to meet or exceed the NEC 2023 standards. Please coordinate with the local governing body for planning commission, building inspection, etc., as their standards may exceed the standards within this guide.

**INTRODUCTION**

In an effort to minimize confusion and misunderstanding, the Rural Electric Board of Directors has established the following standards:

The Rural Electric will be responsible for all wiring and electric facilities up to and including the point of connection to the member's wiring. The member shall be responsible for

everything from that point on, except that the Rural Electric will always supply and control the meter.

The point of connection and change of responsibility between the member's wiring and that of the Rural Electric shall be:

Rural Electric underground construction:

- at the member's side of the meter base when the meter is on a building.
- at the member's side of any meter/disconnect panel or pedestal provided by the Rural Electric.

Prior to making a connection to serve any location or structure, or to making a reconnection of a member's wiring, the Rural Electric must observe all wiring and equipment from the point of service connection up to and including the main breaker in the service entrance panel for: grounding, completeness, unsafe conditions, and violations of the National Electric Code. Any unsafe condition or violation observed may be cause for refusal to connect the wiring until satisfactory corrections have been made.

All poles, pedestals and combination meter-breaker panels used by the Rural Electric must be wholly owned and controlled by the Rural Electric. No work will be permitted on any of them by anyone other than a qualified, on-duty, Rural Electric employee.

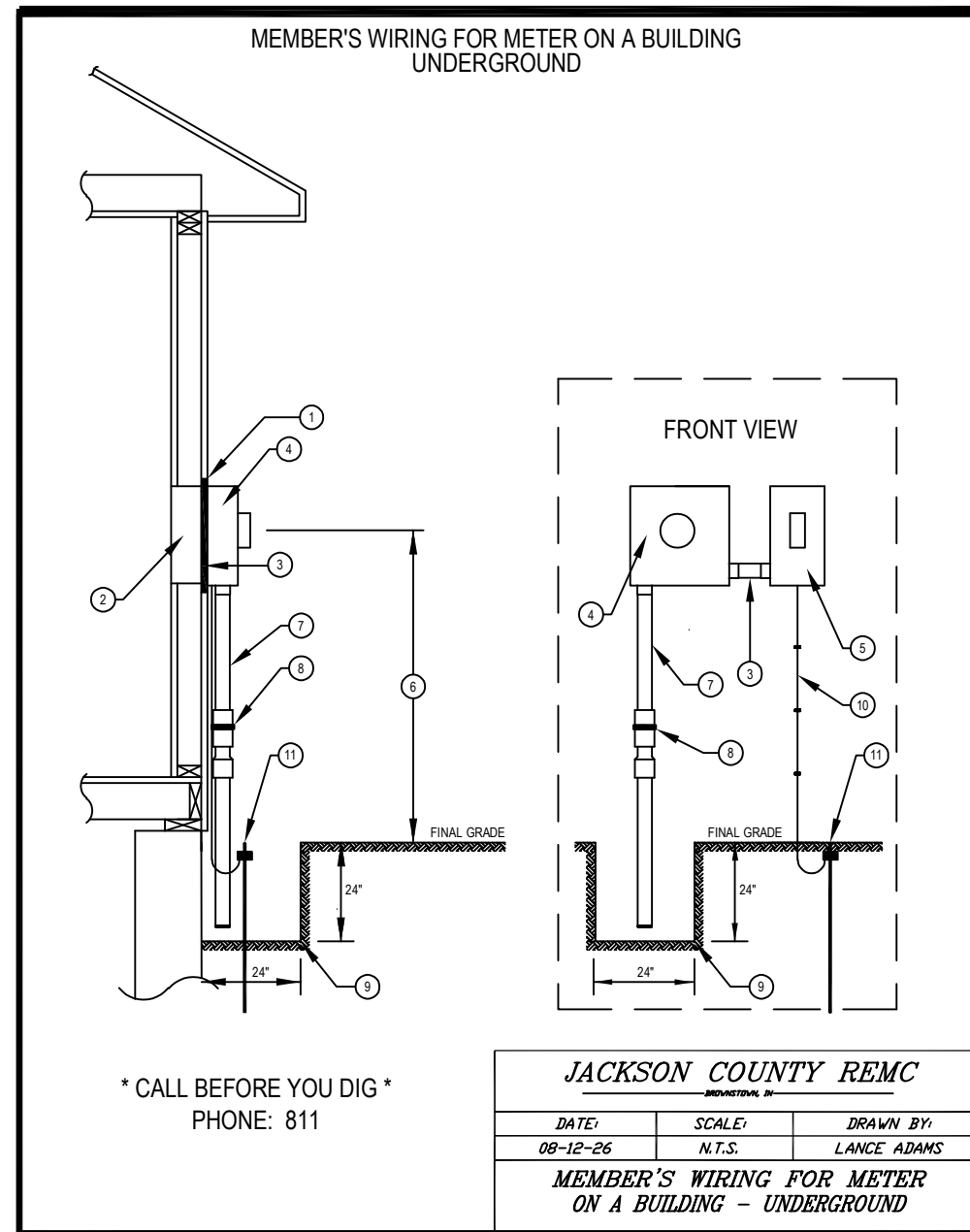
Employees of the Rural Electric are not permitted to work on a member's wiring or equipment other than to connect wiring at the connection point to the Rural Electric's facilities, or to take emergency action to eliminate an immediate threat to life or property.

### **SAFETY NOTICE**

No one other than a qualified Rural Electric employee may make any connection on the Rural Electric pole, except at ground level after service has been disconnected. **METER SEALS AND METERS MUST NOT BE REMOVED FOR ANY REASON.**

### **NOTICE**

This publication was prepared by Jackson County Rural Electric Membership Corporation. Neither this organization nor any person acting on behalf of it: (a) makes any warranty, expressed or implied, with respect to the use of any information, apparatus, method or process disclosed in this publication; or (b) assumes any liabilities with respect to the use of, or for damages resulting from the use of, any information, apparatus, method or process disclosed in this publication



## MEMBER'S WIRING FOR METER ON A BUILDING-UNDERGROUND

Meter locations must be approved by a Rural Electric staking engineer.

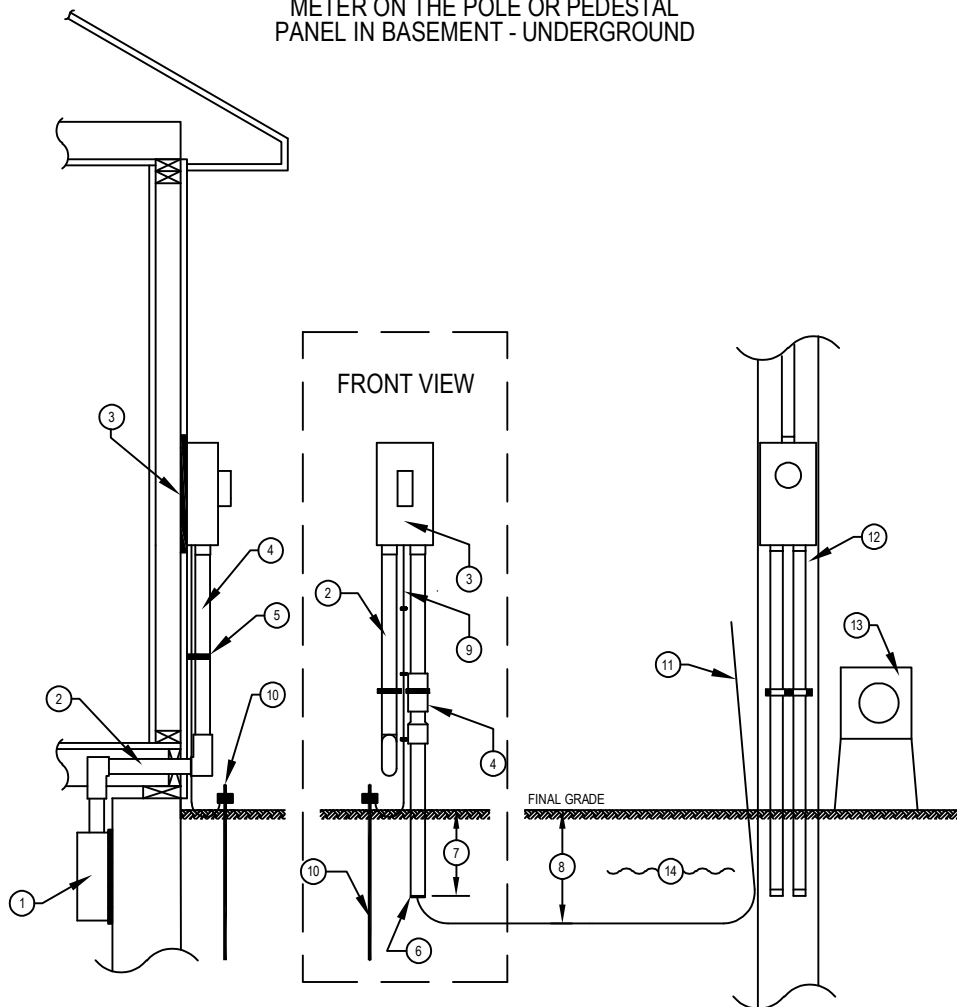
- 1.) Install ½" plywood (in place of the weatherboard) on the exterior framing of the building on which to mount the meter base and exterior emergency disconnect. The plywood should be mounted so that the meter base height will be approximately 60"-66" inches above final grade to the center of the meter base.
- 2.) Securely fasten the electrical service panel to the interior structure of the building. Normally the panel is recessed in the wall between two 2X4's.
- 3.) The wiring that runs between the electric service panel, the exterior emergency disconnect and the meterbase should be in gray electrical PVC conduit. The conduit should be properly adapted to the panel, the exterior emergency disconnect and the meterbase by using male adapters, steel locknuts, and plastic bushings. See chart 1C for conduit sizing.
- 4.) Securely fasten the meter base to the structure of the building. The meter base will need to be fastened to the structure with at least four wood screws.
- 5.) Install an exterior emergency disconnect on the outside of the structure as required by NEC.
- 6.) The meter base should be installed approximately 60"-66" inches above final grade to the center of the meter base.
- 7.) Install schedule 80 gray electrical PVC from the meterbase down into the ground approximately eighteen inches below final grade. If service conductors will be installed in conduit underground, install an expansion fitting and strap appropriately within 36" of meterbase. Conduit should be installed so that the REMC's service conductors are aligned with the "line side" terminations of the meter socket.
- 8.) Securely fasten the conduit to the building with standoff brackets or two hole straps.
- 9.) Dig a trench 2' deep and extend the trench approximately 2' away from the building. This area should remain clear of all obstructions preventing the REMC installation and adaptation to the service equipment. Concrete should be cut and removed if poured beyond the exterior wall and preventing the installation of the vertical conduit from reaching a depth of 18".
- 10.) Install a grounding conductor from the exterior emergency disconnect to a grounding electrode. See chart 1A for grounding conductor sizing.
- 11.) Install a grounding electrode (ground rod) approximately eighteen inches away from the foundation of the building. The top of the grounding electrode should be flush with or below final grade. Leave the grounding electrode and grounding clamp exposed until an REMC employee has performed a safety check. Grounding electrode and clamp sizing can be found on chart 1B.

## MEMBER'S WIRING FOR METER ON THE POLE OR PEDESTAL WHEN THE PANEL IS IN THE BASEMENT - UNDERGROUND

**Meter locations must be approved by a Rural Electric staking engineer.**

- 1.) Securely fasten the electrical service panel to the structure of the building. If the panel is located on a block or concrete wall, mount a piece of plywood to the wall. Before mounting the panel to the plywood, make sure that the main breaker is located at eye level. Once the main breaker is at eye level, securely fasten the panel to the plywood with at least four wood screws. The plywood will prevent the panel from drawing moisture, which will cause it to rust.
- 2.) The wiring that runs between the electric service panel and the exterior emergency disconnect should be in gray electrical PVC conduit. The conduit should be properly adapted to both the panel and the exterior emergency disconnect by using male adapters, steel locknuts, and plastic bushings. See chart 1C for conduit sizing.
- 3.) Install an exterior emergency disconnect on the outside of the structure as required by NEC.
- 4.) Install schedule 80 gray electrical PVC from the exterior emergency disconnect down into the ground approximately eighteen inches below final grade. If service conductors will be installed in conduit underground, install an expansion fitting and strap appropriately within 36" of disconnect.

MEMBER'S WIRING FOR  
METER ON THE POLE OR PEDESTAL  
PANEL IN BASEMENT - UNDERGROUND



\* CALL BEFORE YOU DIG \*  
PHONE: 811

**JACKSON COUNTY REMC**

REGULATORY DIV.

DATE:

08-12-26

SCALE:

N.T.S.

DRAWN BY:

LANCE ADAMS

**MEMBER'S WIRING FOR METER  
ON THE POLE OR PEDESTAL  
PANEL IN BASEMENT - UNDERGROUND**

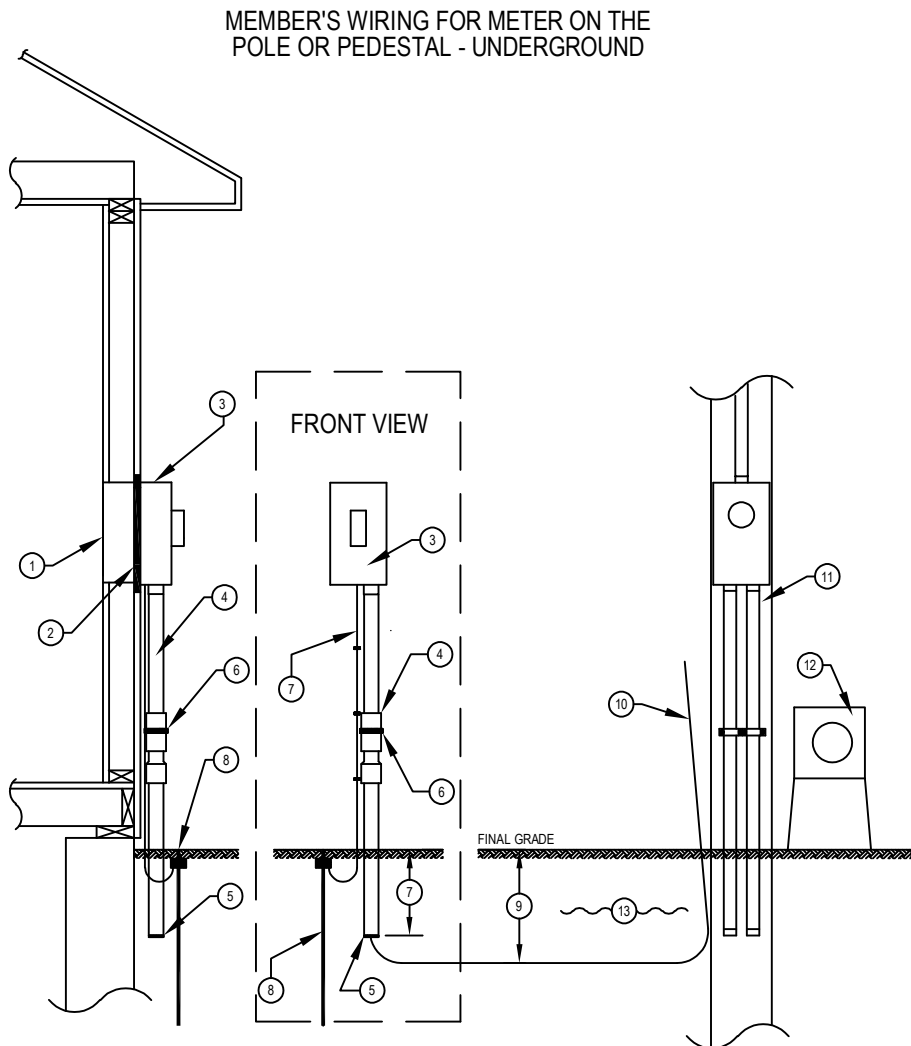
- 5.) Securely fasten the conduit to the building with conduit standoff brackets or two hole straps within 36" of the exterior emergency disconnect.
- 6.) Install a gray electrical PVC coupling on the end of the conduit that is in the ground.
- 7.) The conduit needs to extend into the trench approximately 18" below final grade.
- 8.) Bury service conductors more than 24" below final grade. Leave 5' of trench exposed at the building and at the REMC meter location.
- 9.) Install a grounding conductor from the exterior emergency disconnect to a grounding electrode and securely fasten the grounding conductor to the structure. See Chart 1A for ground conductor sizing.
- 10.) Install a grounding electrode (ground rod) approximately eighteen inches away from the foundation of the building. The top of the grounding electrode should be flush with or below final grade. Leave the grounding electrode and grounding clamp exposed until an REMC employee has performed a safety check. Grounding electrode and clamp sizing can be found on chart 1B.
- 11.) Leave at least 8' of wire above ground at the meter pole or meter pedestal location. Stop member conduit 24" from meterbase location. Do not glue a 90 degree PVC sweep onto the end of the conduit. See chart 1D for service entrance conductor sizing.

- 12.) REMC meter location: This location will be marked with a flag or stake identified with red and white marking tape.
- 13.) REMC meter pedestal location: This location will be marked with a flag or stake identified with red and white marking tape.
- 14.) Install a caution tape 12" above the conduit and wire in the trench. The caution tape is to prevent anyone from digging into the buried electric line.

## MEMBER'S WIRING FOR METER ON THE POLE OR PEDESTAL - UNDERGROUND

A Rural Electric staking engineer must approve meter locations.

- 1.) Securely fasten the electrical service panel to the structure of the building. Normally the panel is recessed in the wall between two 2X4's, and the main breaker needs to be at eye level.
- 2.) The wiring that runs between the panel and the exterior emergency disconnect should be in gray electrical PVC conduit. The conduit should be properly adapted to both the electrical service panel and the exterior emergency disconnect by using male adapters, steel locknuts, and plastic bushings. See chart 1D for service entrance conductor sizing.
- 3.) Install an exterior emergency disconnect on the outside of the structure as required by NEC.
- 4.) Install schedule 80 gray electrical PVC from the exterior emergency disconnect down into the ground approximately 18" below final grade. If service conductors will be installed in conduit underground, install an expansion fitting and strap appropriately within 36" of disconnect.
- 5.) Install a gray electrical PVC coupling on the end of the conduit that is in the ground when service conductors are to be direct buried.
- 6.) Securely fasten the conduit to the building with conduit standoff brackets or two hole straps



\* CALL BEFORE YOU DIG \*  
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| DATE:    | SCALE: | DRAWN BY:   |
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| 08-12-26 | N.T.S. | LANCE ADAMS |

**MEMBER'S WIRING FOR METER  
ON THE POLE OR PEDESTAL - UNDERGROUND**

- 7.) Install a grounding conductor from the exterior emergency disconnect down to a grounding electrode. See chart 1A for grounding conductor sizing.
- 8.) Install a grounding electrode (ground rod) approximately eighteen inches away from the foundation of the building. The top of the grounding electrode should be flush with or below final grade. Leave the grounding electrode and grounding clamp exposed until an REMC employee has performed a safety check. Grounding electrode and clamp sizing can be found on chart 1B.
- 9.) Bury service conductors more than 24" below final grade. Leave 5' of trench exposed at the building and at the REMC meter location.
- 10.) Leave at least 8' of wire above ground at the meter pole or meter pedestal location. Stop member conduit 24" from meterbase location. Do not glue a 90 degree PVC sweep onto the end of the conduit. See chart 1D for service entrance conductor sizing.
- 11.) REMC meter pole location: This location will be marked with a flag or stake identified with red and white marking tape.
- 12.) REMC meter pedestal location: This location will be marked with a flag or stake identified with red and white tape.
- 13.) Install a caution tape 12" above the conduit and wire in the trench. The caution tape is to prevent anyone from digging into the buried electric line.

CHART 1A

| GROUNDING CONDUCTOR SIZING                  |                            |
|---------------------------------------------|----------------------------|
| ELECTRICAL SERVICE ENTRANCE SIZE IN AMPERES | GROUNDING ELECTRODE SIZING |
| 100 AMP                                     | #4 SOLID COPPER            |
| 200 AMP                                     | #4 SOLID COPPER            |

CHART 1B

| GROUNDING ELECTRODE SIZING                  |                             |                  |
|---------------------------------------------|-----------------------------|------------------|
| ELECTRICAL SERVICE ENTRANCE SIZE IN AMPERES | GROUNDING ELECTRODE SIZING  | GROUND ROD CLAMP |
| 100 AMP                                     | 5/8" X 8' COPPER GROUND ROD | JAB58H           |
| 200 AMP                                     | 5/8" X 8' COPPER GROUND ROD | JAB58H           |

CHART 1C

| CONDUIT SIZING |             |                 |
|----------------|-------------|-----------------|
| SERVICE SIZE   | RIGID STEEL | SCHEDULE 80 PVC |
| 100 AMP        | 1.5"        | 1.5"            |
| 200 AMP        | 2"          | 2"              |

CHART 1D

| SERVICE ENTRANCE CONDUCTOR SIZING |               |          |                 |
|-----------------------------------|---------------|----------|-----------------|
| SERVICE SIZE                      | COPPER "THWN" | ALUMINUM | USE / RHH / RHW |
| 100 AMP                           | #2            |          | #2              |
| 200 AMP                           | 3/0           |          | 4/0             |

CHART 1E

| "LB" SIZING  |           |
|--------------|-----------|
| SERVICE SIZE | "LB" SIZE |
| 100 AMP      | 2"        |
| 200 AMP      | 2"        |



**Jackson County REMC**  
**812-358-4458**

## Avoid Power Line Easement Encroachment!

Keep all structures at least 20 feet away from power lines and poles! If you have questions about power line easements, please call us at once. We'll be happy to meet with you to discuss your plans.

When you're planning to dig,  
do your part. Call



two full working days  
before you start!

Contact the Indiana Utility Plant Protection  
Service (also known as Holey Moley)  
to have any possible underground utilities  
located before you begin to dig.  
**In Indiana, it's the law!**

**Danger!**  
**High Voltage!**

Electric equipment may  
cause shock, burn, or death.  
If you find equipment open  
or unlocked or power lines  
on the ground,  
**CALL IMMEDIATELY!**

This institution is an equal opportunity provider and employer.