



EXISTING OVERHEAD SERVICE

GENERAL REQUIREMENTS

If you wish to continue having overhead service to your home, the information in this chapter will help you.

The following is a checklist that will assist you in preparing your project for the replacement of your existing overhead service. After you have completed these items, Central Lincoln will replace your service line and meter (see Figure E-1). The following items must be completed before Central Lincoln will install your replacement service line:

- Check to see if there are any local ordinances/covenants that prevent you from replacing an overhead service.
- Contact Central Lincoln (see SECTION A - "Requesting service").
- Determine an acceptable location for your meter base (see SECTION A).
- Provide a clear path from that pole to your service mast, including tree trimming.
- Install your replacement service equipment.
- Install your replacement service entrance conductors (leave 18 inches exposed at the weatherhead).
- Verify that your service mast height requirements have been met.
- Have the local electrical inspection agency (see SECTION A) approve your installation.

GETTING STARTED

After you have completed your Customer Request For Replacement Service, Central Lincoln will contact you to

arrange an appointment at the site. At this time the location for the meter base and service line will be determined.

Again, your meter base should be located outside, and within 4 feet of the front of your structure closest to normal public access and the pole (see SECTION A, Figure A-1).

Another factor to consider when choosing the meter base location is what types of terrain the line will be crossing. Central Lincoln suggests that whenever possible you avoid service line routes that will cross your driveway. Service lines crossing driveways can be hit by vehicles and cause damage to your service equipment and even your home.

If your service line will be passing through any trees, you are required to prune those trees to provide a 3 foot minimum clearance **on all sides** of the service line. You are also responsible for regular tree pruning, and if necessary, tree removal to keep the path clear.

CONVERTING OVERHEAD TO UNDERGROUND/RELOCATING METER

Central Lincoln will no longer attach electrical service to a customer-owned overhead meter pole. If a customer is replacing an existing overhead service, and is willing to convert to an underground system, we will provide (if required) one Central Lincoln-owned clearance pole, service riser, service wire, and in-ground junction box (see Figure E-8 for installation details) at no cost to customer. The same holds true if a customer is willing to relocate a meter to a location more convenient for Central Lincoln.

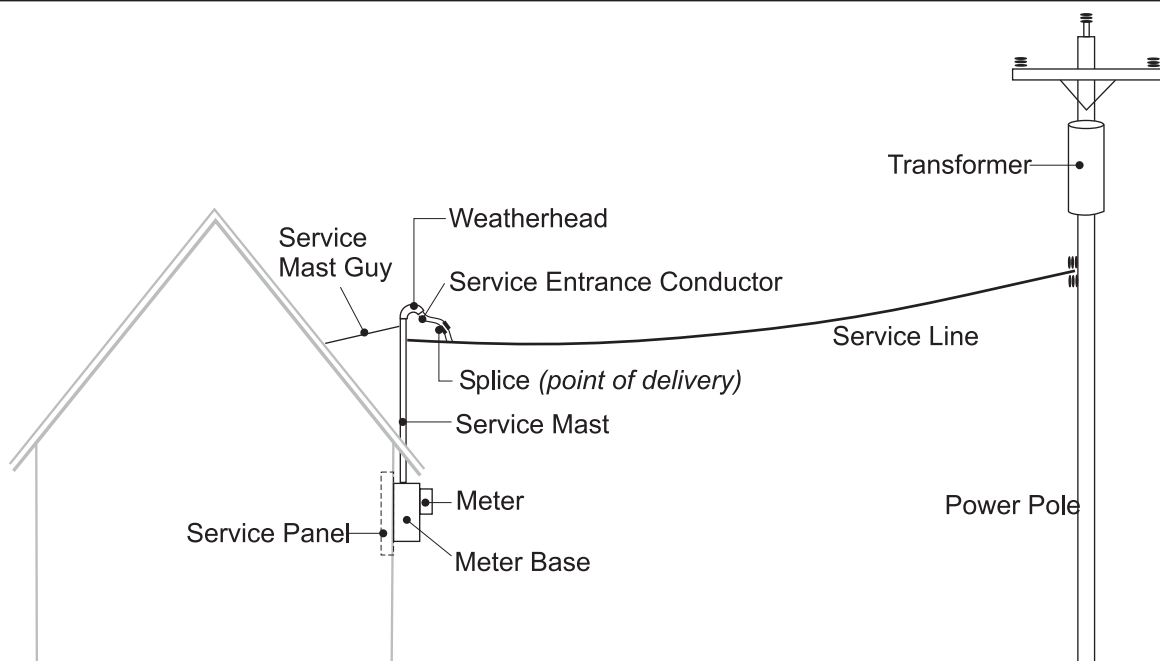


Figure E-1.
Typical overhead service installation.

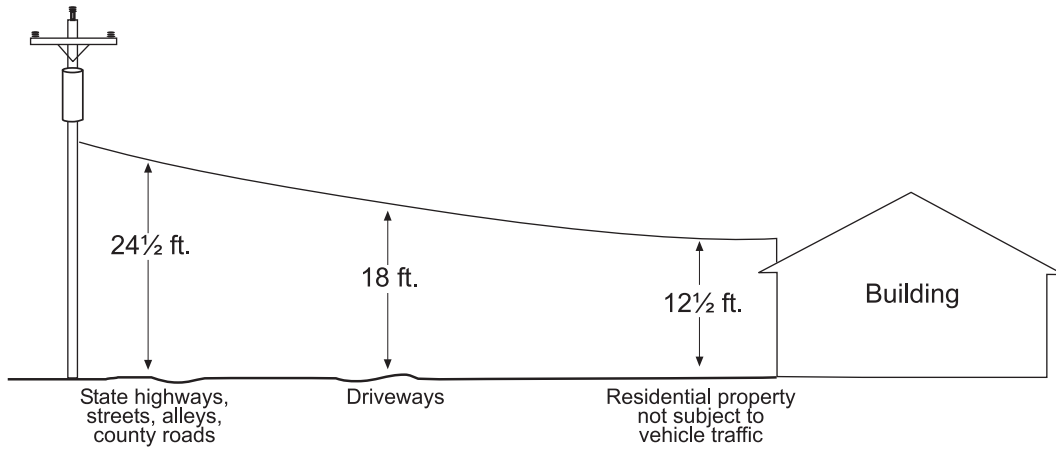


Figure E-2.
Minimum clearances from ground.

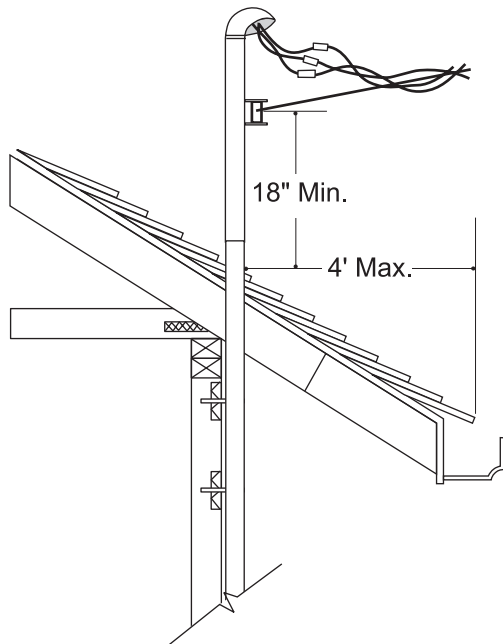


Figure E-3.
Service mast clearance option. Contact your local electrical inspection agency.

SERVICE MAST REQUIREMENTS

A service mast is a conduit that runs vertically from the top of your meter base up through your roof. It contains your service entrance conductors and typically supports one end of your service line. Service masts are necessary when installing an overhead service and are installed by you or your electrical contractor.

The requirements for the installation of your service mast are located in the NEC. Some of the more common methods are included in this section for your information.

Height requirements

The top of your service mast must be a least 13 feet above final grade so that the minimum clearances over your property can be maintained. Additional height may be required depending upon the location and type of structure or terrain which your service line passes over. Figure E-2 illustrates some of the minimum clearances that must be maintained.

The NEC and Central Lincoln also require that your service mast maintain minimum clearances above your roof. The clearance required depends upon the slope of your roof, and whether or not your service line is attached to the structure.

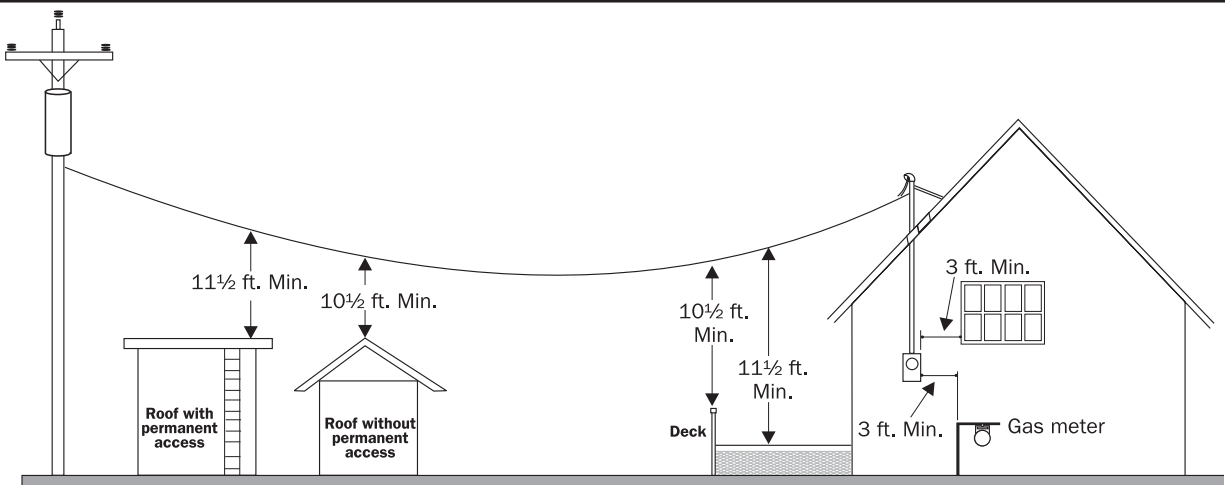


Figure E-4.
Minimum vertical clearances over other structures.

Figure E-3 is one example of a service mast installation with the service line attached to the mast. This is the method preferred by Central Lincoln. For other options and details, consult the NEC.

Service lines passing over the roof of another structure must meet the clearances shown on Figure E-4.

Central Lincoln can assist you in determining your proper mast height. Call our nearest service office, and ask to speak to an engineering technician.

Clearances from buildings, openings, gas

A minimum clearance of 3 feet is required between service lines and windows, doors, porches, fire escapes, or similar openings.

A minimum horizontal clearance of 3 feet is required between electric service equipment and natural gas metering equipment (see Figure E-4).

Additional mast supports

Additional mast supports, typically a guy or brace, are required for any service line that is over 50 feet in length. Guy and braces are installed to prevent the weight of the service line from pulling your service mast away from your home. Further information regarding guying and bracing service masts is available in the NEC.

Additional mast supports are required when:

- You have a 400-amp or larger meter base.
- Your service line is over 50 feet long.
- The top of your service mast is more than 26 inches above your roof.

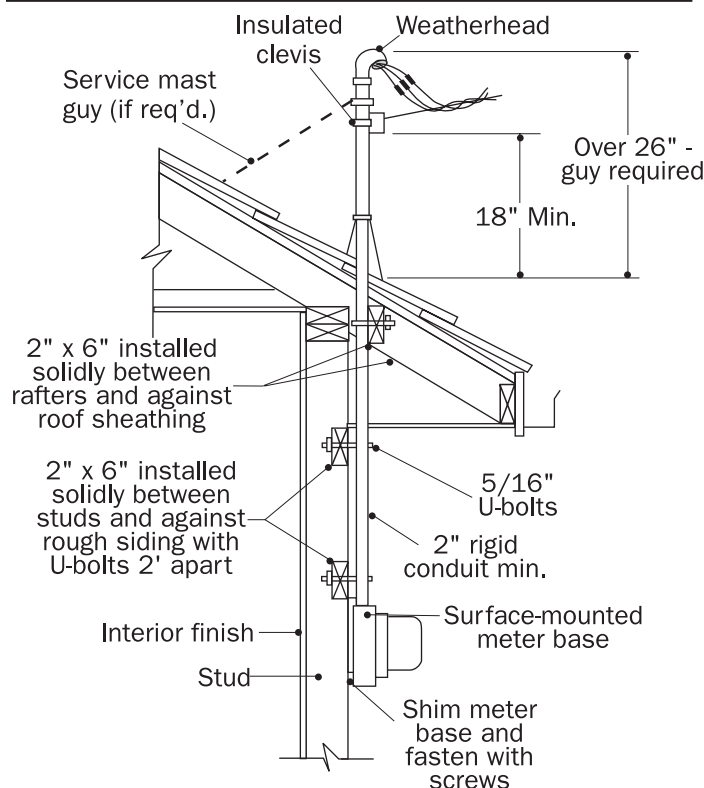


Figure E-5.
Surface-mounted meter base.

See Figure E-5 for an example of a service mast guy.

SERVICE EQUIPMENT INSTALLATION REQUIREMENTS

After you have determined the meter base location, the service route, the height of your service mast, and the size of your service equipment (200 amp, 400 amp, etc.), you are ready to begin installing your service equipment.

There are two ways this equipment can be installed:

- Surface mounted (see Figure E-5)
- Flush mounted (see Figure E-6)

Once you have installed your meter base and mast you are ready to provide and install your service entrance conductor. The service entrance conductor is the wire that is connected to the top lugs in your meter base and runs upwards through the service mast. The service entrance conductors must be sized according to the NEC and to the rating of your meter base. When installing the wire, leave at least 18 inches of it exposed at the end of the weatherhead to allow Central Lincoln to connect your service line to it. When you install your meter base make sure the center of the meter will be between 5 and 6 feet above finished ground level.

If you have any questions regarding the installation of your service equipment we suggest that you consult the NEC, call the inspecting agency for your area, or contact an electrical contractor.

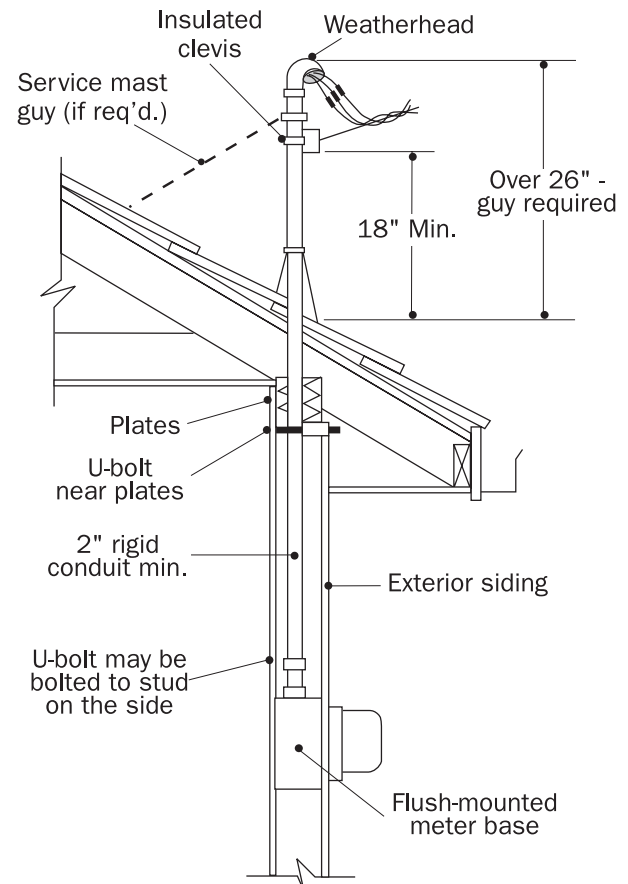


Figure E-6.
Flush-mounted meter base.

CUSTOMER-OWNED METER POLE

If a customer-owned meter pole needs to be replaced, Central Lincoln will provide a 35' pole and riser at no cost. **However, Central Lincoln will not reattach the meter to the new pole.** It is the customer's responsibility to construct a meter pedestal that will be served, underground, from the provided pole. You have two meter pedestal options:

1. **Custom built**- a pedestal that you or your electrical contractor builds.
2. **Factory built**- a pedestal that you buy.

See Figure E-7 for an example of a meter pole replacement.

Your meter pole has the same location requirements as your meter base (see SECTION A). However, they may be located closer to vehicular traffic with approval of your Central Lincoln Engineer. Typically they are installed within 30 feet of your home.

For additional assistance on meter pole installations, contact your nearest Central Lincoln service office, and ask to speak to an engineering technician.

Items owned and installed by customer (Fig. E-7)

1. 6 in. x 6 in. x 8 feet min. fully pressure treated post, or factory-built meter pedestal.
2. Meter base.
3. 2" Schedule 40 PVC conduit, couplings and 24" minimum radius elbows.
4. Ground wire (in accordance with NEC).
5. Ground Rods (in accordance with NEC; 2 required).
6. Customer conductors - 18" above top of box.
7. 3" Schedule 40 PVC conduit, couplings and 36" minimum radius elbow.

Items owned by Central Lincoln and installed by customer (Fig. E-7)

8. Pullstring (on spans greater than 50 feet).
9. Service Hand-hole (HH-14 or HH-20).
10. Schedule 80 PVC, 36" minimum radius elbow.

Items owned & installed by Central Lincoln (Fig. E-7)

11. Meter.
12. Service pole.

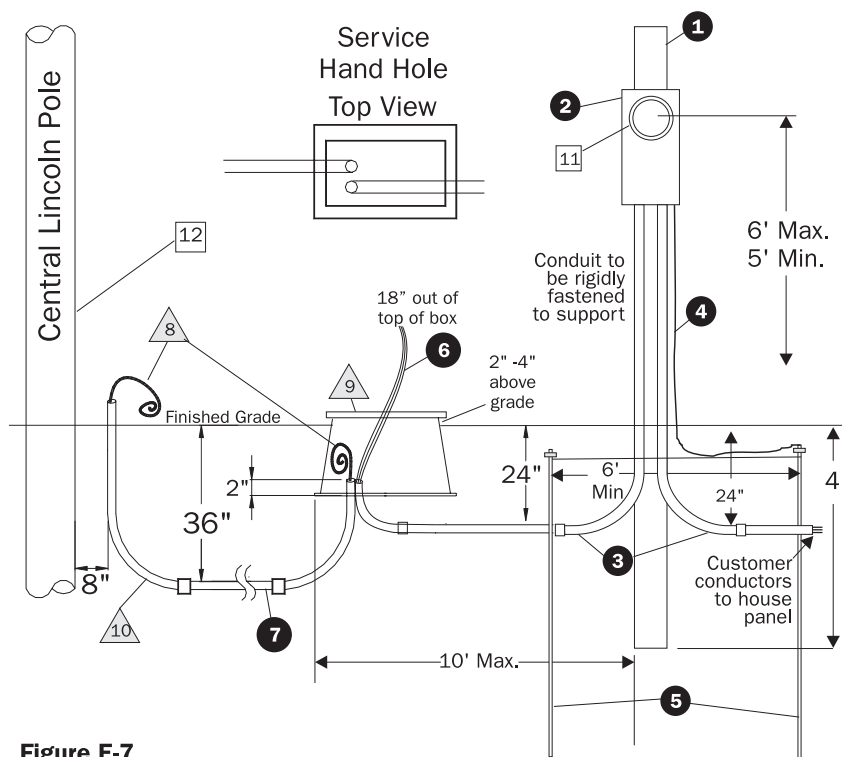


Figure E-7.
Replacing meter-pole with Central Lincoln-owned pole and customer-installed and owned meter pedestal..

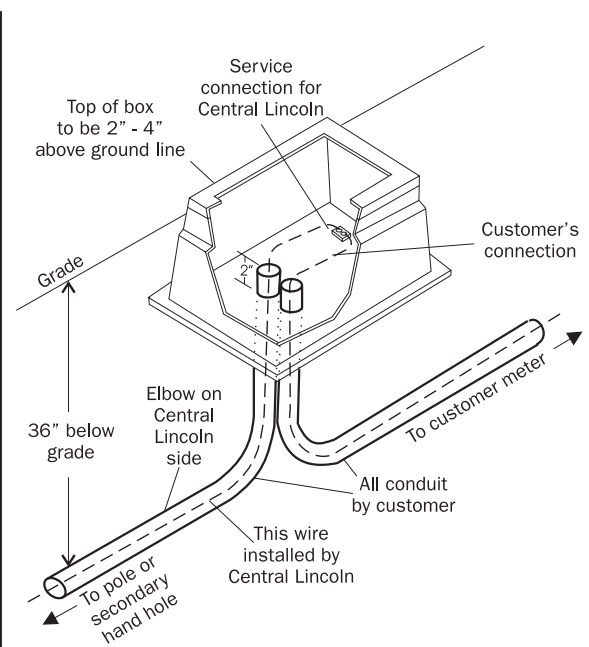


Figure E-8.
Installation of service hand hole (HH-14 or HH-20)