

# **Huntsville Utilities**

## **Overhead Residential Service Requirements**

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### **Scope**

This document is meant to describe Huntsville Utilities' requirements for a typical residential overhead service to a home on a fixed foundation, with a service size 400 amps or less. These specifications are not meant to over-ride any local code requirements, including the National Electric Code or National Electric Safety Code.

### **General**

1. No service will be connected without an inspection from the appropriate local inspection agency. Either Huntsville Utilities or the inspection agency can deny connection of service if their requirements are not met. Approval from one does not guarantee approval of the other.
2. Huntsville Utilities will provide only one delivery point per building.
3. The customer is encouraged to contact the appropriate inspection agency for local requirements (we can provide a list of agencies with their contact information).
4. Permanent house numbers must be installed on the house or on the mail box and must be visible from the street. In addition, street signs must be installed if the house is located on a new street.
5. The necessary electrical distribution infrastructure must be already in place to provide service. Any Aide-To-Construction required to build the necessary infrastructure must be paid before construction of facilities will be scheduled.
6. An intermediate pole may be required. Any Aide-To-Construction required to install said pole must be paid for before construction of facilities will be scheduled.
7. Customer must call 535-1255 to set up an account before a service will be installed. This may require a visit to one of our offices at 112 Spragins Street or 1145 Jordan Road.
8. Huntsville Utilities will provide and install the service conductor from the power source to the customer supplied and installed weatherhead.
9. The customer is responsible for installing the weatherhead, mast, meter base, conductor extending from the weatherhead, and for making the connections in the meter base. There must be at least 18" of cable extending from the weatherhead. Check with the local inspection agency for conductor size. No ground wire should extend from the weatherhead.
10. Overhead Service can only be installed across the land deeded to the building it is serving, or in a public right of way or within an easement for that purpose, and may not be installed over any building or structure.
11. The maximum overhead service length is 115'.

## Mast Extending Above Roof

1. The customer shall use a galvanized conduit with a minimum diameter of 2-1/2 inches. If the length of the conduit exceeds ten feet, coupling will be permitted on the end adjacent to the meter.
2. The service mast must be adequately braced to support the overhead service installed by Huntsville Utilities.
3. The service mast shall be installed at a height sufficient to provide the proper ground clearance (see diagram 1) for the overhead service conductors installed by Huntsville Utilities. The lowest point of the service must be 10' above final grade and 12' above driveway.
4. The customer shall provide an insulated conduit clevis on the mast so Huntsville Utilities can make a solid service connection to the customer's house.
5. The installation, maintenance and security of the meter base, conduit, mast, and weatherhead are the responsibility of the homeowner.

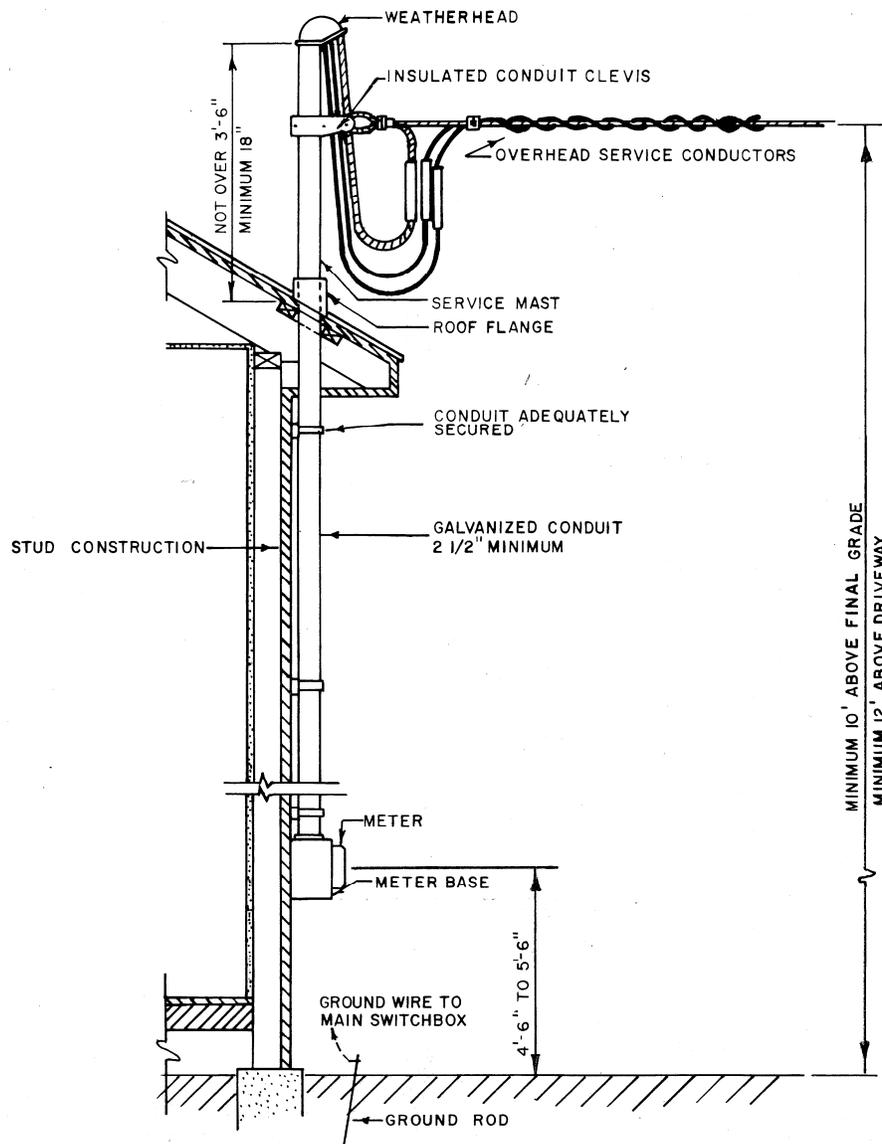


Diagram 1

## Connection Below Eave of House

1. The customer shall install a 5/8 inch galvanized eyebolt securely within 12 inches of the weatherhead and level with the weatherhead.
2. The eyebolt and weatherhead shall be installed at a height sufficient to provide the proper ground clearance (see diagram 2) for the overhead service conductors installed by Huntsville Utilities. The lowest point of the service must be 10' above final grade and 12' above driveway.
3. The installation, maintenance and security of the meter base, conduit, and weatherhead are the responsibility of the homeowner.

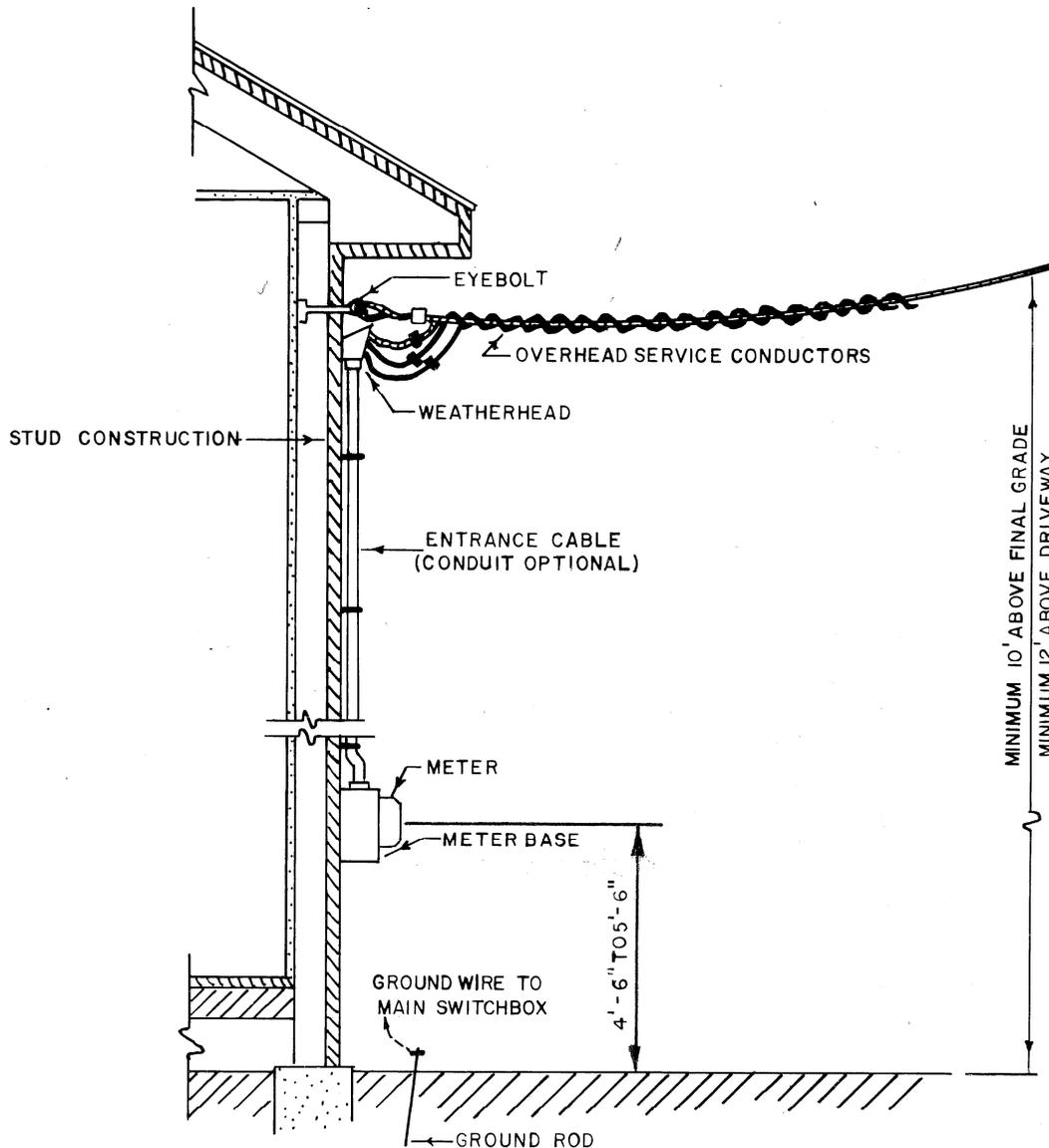


Diagram 2

## Meter Bases and Meter Base Locations

1. Customer must provide and install the meter base. Meter base must be from Huntsville Utilities' current list of approved meter bases (see publication of approved meter bases).
2. A ground rod and ground wire must be installed by the customer according to local code. The main switch box must be bonded to the ground rod without passing through the meter base (which should not be grounded).
3. The ground rod must also be accessible to any communication companies for bonding. Failure of all services to the home to bond to this ground rod could result in equipment damage.
4. Meter base must be located at the point of the house closest to the point of attachment to Huntsville Utilities' power source (call 535-1315 if you need a representative to determine this point). Meter base must be installed within line of sight to this source.
5. Meter base must be installed on a front wall of the house, or side wall within 5' of the front, at a vertical distance of 4'6" to 5'6" from finished grade to the center of the meter glass.
6. Meter base location must be accessible for reading and maintenance.

## Inspections When No Local Agency Has Jurisdiction

1. The customer is required to obtain all health, electrical and building inspections according to local jurisdiction.
2. Where there is no local agency performing inspections, Huntsville Utilities will ensure basic requirements (as described in this section of this document) are met before connecting service.
3. Service Entrance Cable Sizes based on Main Disconnect Size

<u>Main Size</u>	<u>Conductor Size</u>	<u>Neutral Size</u>
100 amps	#4 copper #2 aluminum	#8 copper #6 aluminum
200 amps	2/0 copper 4/0 aluminum	#4 copper #2 aluminum
225 amps	3/0 copper 250 mcm aluminum	#4 copper #2 aluminum

400 amps - normally a 400 amp residential service will use two 200 amp mains  
contact Engineering Services 535-1315 if using 400 amp main
4. The customer must supply and install a copper ground rod a minimum of 8' in length (minimum of 7'6" in ground) and shall have a minimum diameter of 1/2". If galvanized pipe is used, a minimum diameter of 3/4" is required.
5. Where the service entrance cable is longer than 36" a 4-wire entrance cable is required.

## Exceptions

1. Any exceptions must be presented to Huntsville Utilities Engineering Services Department. Call 535-1315 to determine which representative should help you (based on geographic location).
2. In some cases a second delivery point may be provided (to a garage or barn), but the account will be set up with a commercial rate.
3. For service size larger than 400 amps, contact Engineering Services at 535-1315. This requires an underground service. Customer will be required to install service cable from the source to the meter base, in addition to installing the conduit. Additional cost may be required to ensure capacity is available for this size of service.