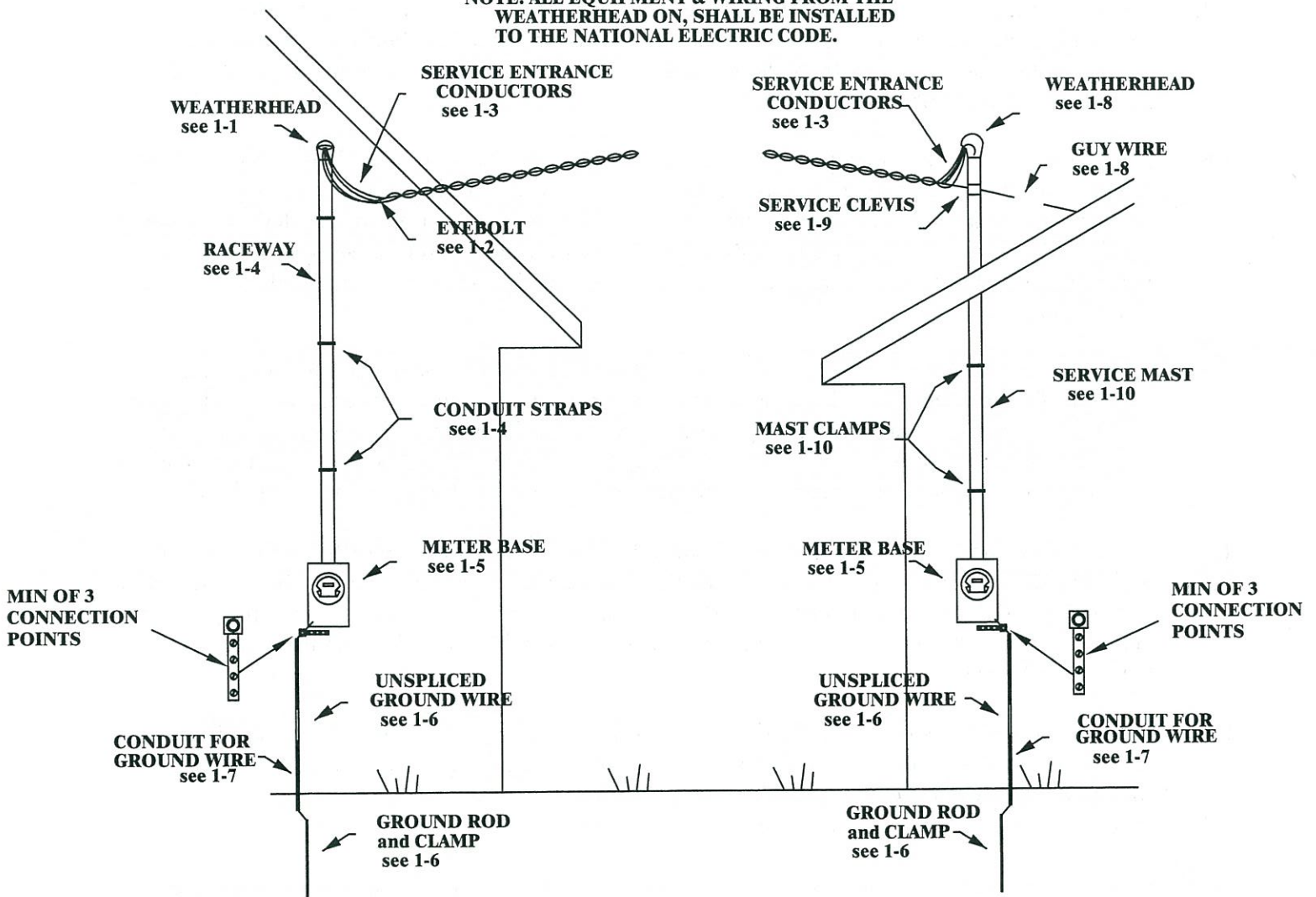


Fig.1-1 OVERHEAD SINGLE PHASE NON-RESIDENTIAL SERVICE

| AMP | CONDUCTOR | NEUTRAL | GROUND | CONDUIT |
|-----|-----------|---------|--------|---------|
| 100 | #2 | #2 | #4 | 2" |
| 200 | 3/0 | 1/0 | #4 | 2" |
| 225 | 4/0 | 2/0 | #4 | 2" |
| 400 | 500 MCM | 400 MCM | #4 | 3" |

ALL WIRE SIZES GIVEN ARE FOR COPPER WIRE
ALL CONDUIT SIZES GIVEN ARE PVC SCH 40 OR 80

NOTE: ALL EQUIPMENT & WIRING FROM THE WEATHERHEAD ON, SHALL BE INSTALLED TO THE NATIONAL ELECTRIC CODE.



REV: 1-09

- 1-1. Weatherhead should be above point of service drop attachment. *Where it is impracticable to locate the service head above the point of attachment, the service head location shall be permitted not farther than 24" from the point of attachment. (NEC 230-54)*
- 1-2. An eyebolt and related hardware, will be furnished by DES for installation by the customer. The eyebolt must pass through a plate spanning two or more wall studs. The eyebolt should be below, and within 18 in. of, weatherhead and a minimum of 15 ft. above final grade, however point of service drop attachment will be of sufficient height to provide minimum clearances as specified by the National Electric Safety Code and Dickson Electric Department as determined by DES Engineering Department.
- 1-3. Service entrance conductors will extend 18 in. out of weatherhead. Use type W conductors (THWN).
- 1-4. Rigid conduit, IMC, EMT, schedule 40 or 80 electrical PVC with rain-tight couplings and connectors, may be used as service entrance conductor raceway. Service entrance raceways should be fastened through the exterior wall within 12 inches of service head and meter base and then at 30 inch intervals in between.
- 1-5. A meter base and hub, of proper size and type, will be furnished and installed by the customer. Meter base will be located between 5 and 6 ft. above final grade, on end of house closest to service pole, at a point marked by DES engineer. Meter base will not be located on or under porches, decks or carports. If distribution panel is not located in immediate vicinity of meter, a weatherproof disconnect may be required; refer to National Electric Code for further information.
- 1-6. A ground wire of bare #4 copper or larger shall be run from the meter base to a driven ground rod. An 8 ft. driven ground rod with tear drop clamp suitable for direct soil burial will be installed below final grade. If rebar is used in a concrete foundation the rebar shall be stubbed out of the concrete at the service entrance. The ground wire will be attached to the rebar using a suitable tear drop clamp then run to the ground rod and then to the meter base unspliced.
- 1-7. Ground wire shall be run in a 1/2" PVC conduit. Conduit should not be attached to meter base, it should start 4" below meter base and continue down to the ground leaving the ground wire exposed between the meter base and the conduit. Install an intersystem bonding terminal below the meter base with a minimum of three additional termination points on the exposed bare ground wire.
- 1-8. Where a mast riser is used, weatherhead should be a minimum of 30 in. above roof. In no case should the drip loop be less than 18 in. above roof. If weatherhead is more than 36 in. above roof a guy wire with eyebolt through rafter is required.
- 1-9. Service clevis assembly will be furnished and installed by DES.
- 1-10. Service mast will be a minimum of 2 in rigid metal, (3 in. rigid metal for 400 Amp) conduit secured with mast clamps fastened through the wall with 1/2 in. clamp bolts; Straps should be within 12 inches of service head and meter base and then at 30 inch intervals in between. If joint in conduit is required install joint close to the meter base.