

# FRANKLIN ELECTRIC COOPERATIVE

## Service Entrance Conductor Sizes

Table is for Type RHH, RHW, RHW-2, THHN, THHW, THW, THW-2, THWN, THWN-2 XHHW, XHHW-2, SE, USE, USE-2, Insulated Conductors Rated at 75°C

	COPPER CONDUCTORS	ALUMINUM CONDUCTORS	
Size Entrance Switch	Recommended Conductor Size	Recommended Conductor Size	Conduit Size
<b>SINGLE PHASE SERVICE ENTRANCE CABLE 2 CONDUCTORS, 1 NEUTRAL(RESIDENTAL)</b>			
100	#2	#1/0	
200	#2/0	#4/0	
<b>SINGLE PHASE SERVICE IN CONDUIT 2 CONDUCTORS, 1 NEUTRAL(RESIDENTAL)</b>			
100	#2	#1/0	2"
200	#2/0	#4/0	2"
400	500 MCM	750 MCM	4"
600	2 runs 350 MCM	2 runs 500 MCM	2@4"
<b>THREE PHASE SERVICE IN CONDUIT 3 CONDUCTORS, 1 NEUTRAL</b>			
100	#2	#1/0	2"
200	#3/0	#250 MCM	2"(2-1/2" w/Aluminum)
400	500 MCM	750 MCM	4"
600	2 runs 350 MCM	2 runs 500 MCM	2@4"

## GROUNDING ELECTRODE CONDUCTOR SIZES

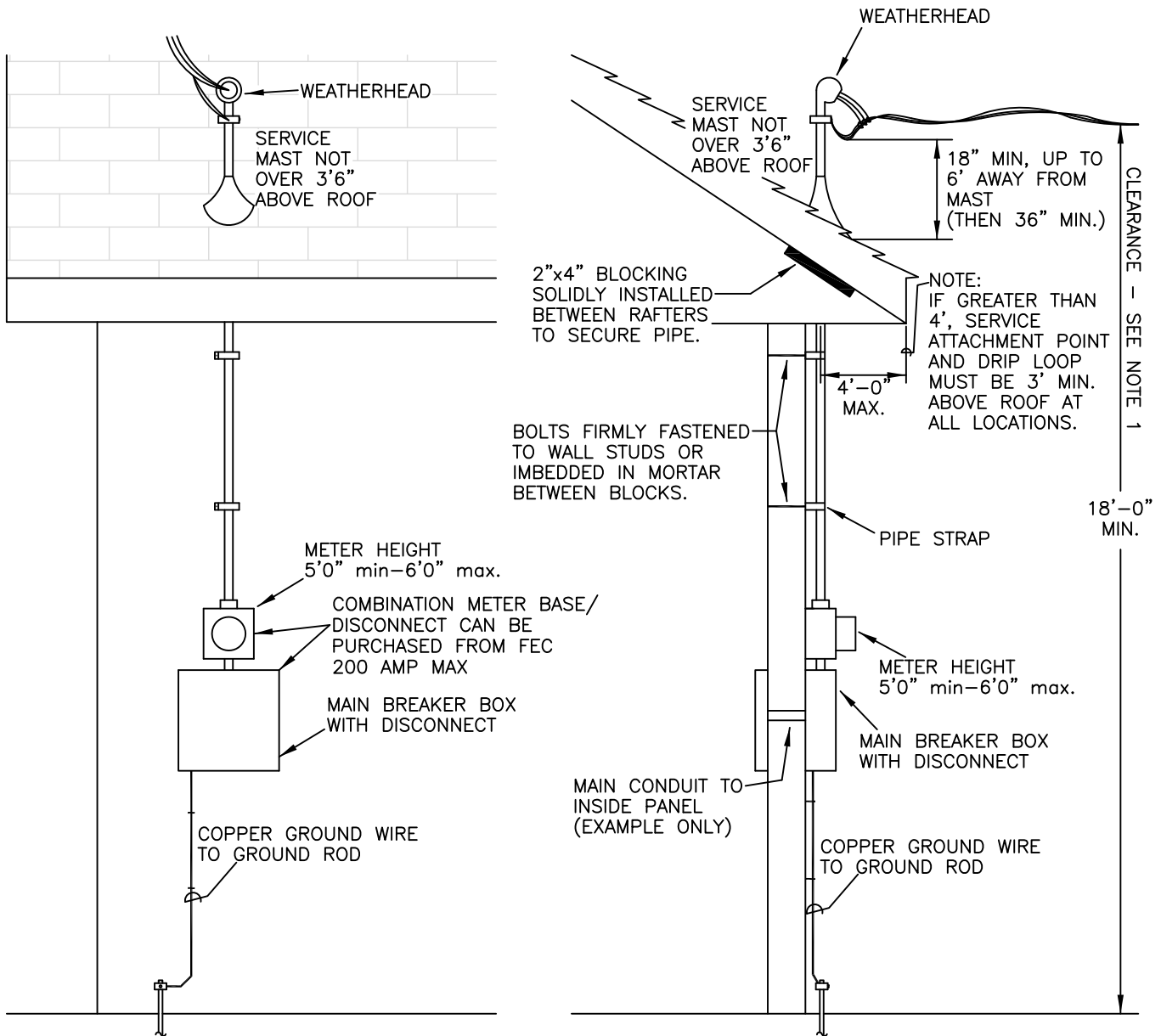
Size Entrance Switch	Size Of Grounding Electrode Conductor
	<b>COPPER</b>
100 Amp	#6
200 Amp	#4
400 Amp	#1/0
600 Amp	#2/0

### NOTES:

- ALUMINUM GROUNDING ELECTRODE CONDUCTORS SHALL NOT BE USED WHERE IN DIRECT CONTACT WITH MASONRY OR THE EARTH OR WHERE SUBJECT TO CORROSIVE CONDITIONS. ALUMINUM GROUNDING CONDUCTORS SHALL NOT BE INSTALLED WITHIN 18" OF THE EARTH.
- ROD-TYPE ELECTRODES OF STAINLESS STEEL AND COPPER, OR ZINC COATED STEEL SHALL BE AT LEAST 5/8" IN DIAMETER. RODS SHALL BE NOT LESS THAN 8' IN LENGTH.
- IT IS RECOMMENDED THAT THE GROUNDING ELECTRODE CONDUCTOR BE RUN TO THE SERVICE NEUTRAL.
- GROUND CLAMPS SHALL BE LISTED FOR THE MATERIALS OF THE GROUNDING ELECTRODE AND THE GROUNDING ELECTRODE CONDUCTOR, AND SHALL ALSO BE LISTED FOR DIRECT SOIL BURIED OR CONCRETE ENCASEMENT.
- IF A SINGLE ROD ELECTRODE HAS A RESISTANCE OF LESS THAN 25 OHMS, SECOND ROD IS REQUIRED NOT LESS THAN 6' APART. BOTH RODS SHALL BE BONDED TO CREATE A SINGLE POINT OF GROUNDING.

# FRANKLIN ELECTRIC COOPERATIVE

## MAST TYPE SERVICE ASSEMBLY GUIDE

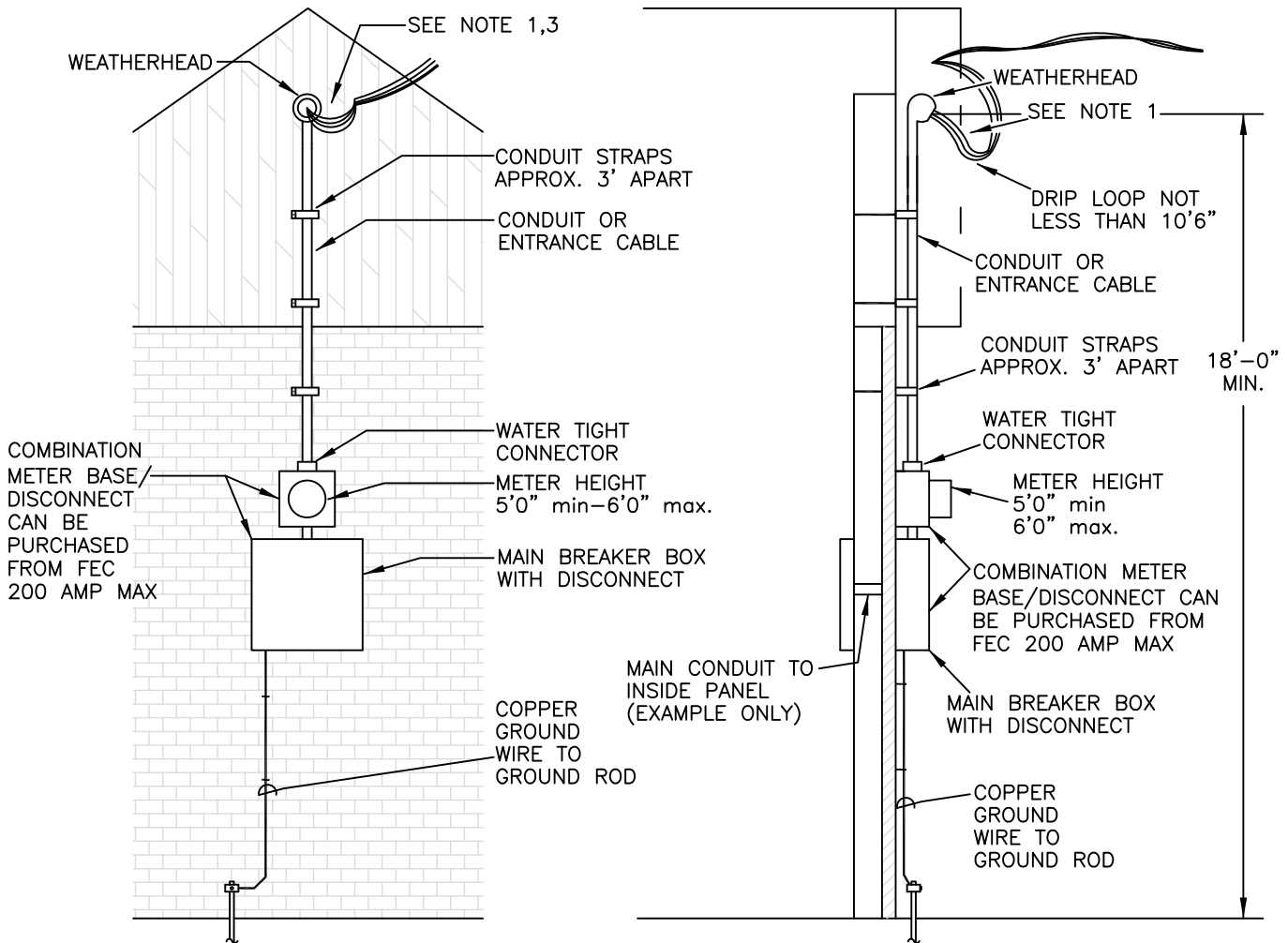


**NOTES:**

1. ALL CLEARANCES TO BE IN CONFORMANCE TO THE MOST STRINGENT REQUIREMENTS OF THE CURRENT EDITION OF EITHER THE NESC, NEC, OR OTHER CODES OF GOVERNMENTAL OR REGULATING AUTHORITIES AS APPLICABLE.
2. IF LENGTH OF CONDUIT EXCEEDS 10', COUPLING IS PERMITTED ON END ADJACENT TO METER.

# FRANKLIN ELECTRIC COOPERATIVE

## OUTSIDE WALL INSTALLATION

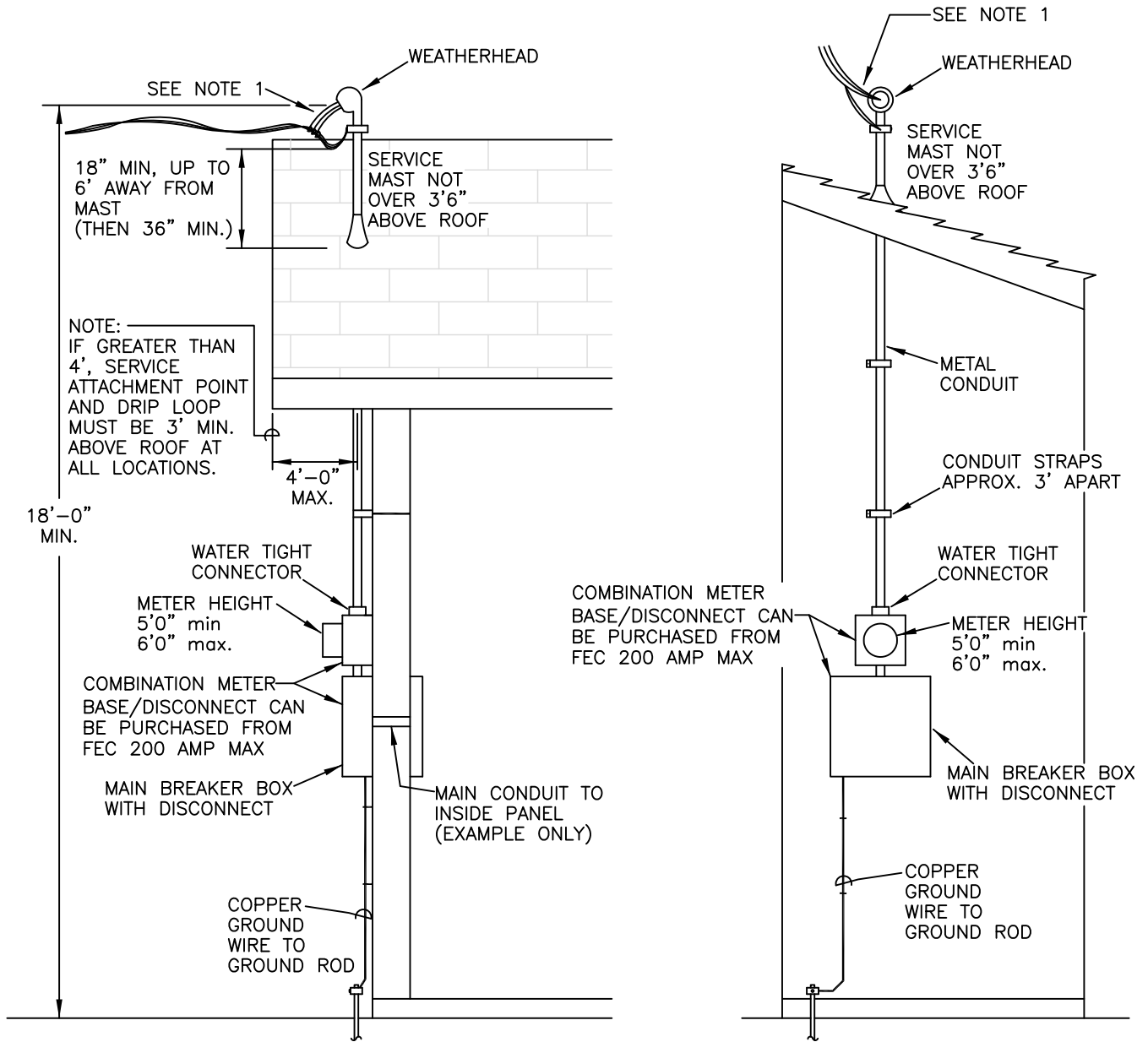


**NOTES:**

1. LEAVE 24" MIN. PIGTAIL ON ENTRANCE CONDUCTOR.
2. FEC WILL DETERMINE POINT OF ATTACHMENT TO BUILDING.
3. FEC WILL SUPPLY EYEBOLT FOR MOUNTING TO BRICK, BLOCK ROCK, OR STUCCO WALLS. CUSTOMER RESPONSIBLE FOR INSTALLING.
4. LEAD PLUGS SHALL BE USED ON ALL MASONRY TYPE CONSTRUCTION TO SECURE CONDUIT STRAPS.
5. WHERE HEIGHT OF THE BUILDING DOES NOT PERMIT ITS SERVICE DROP TO MEET 18' REQUIRED OVER RESIDENTIAL DRIVEWAY, CLEARANCE MAY BE REDUCED TO 12'.

# FRANKLIN ELECTRIC COOPERATIVE

## MANUFACTURED HOME METER SOCKET INSTALLATION

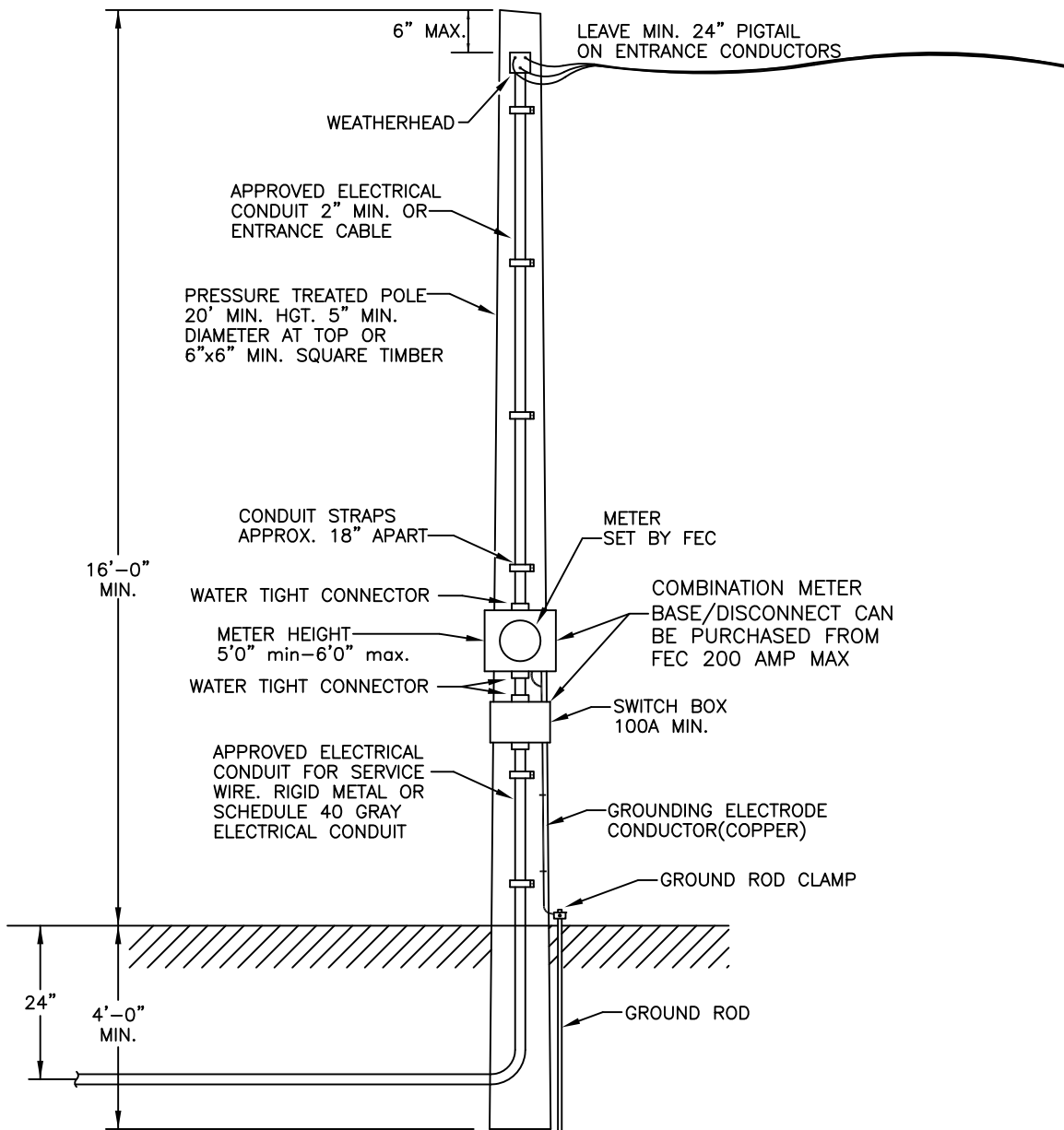


**NOTES:**

1. LEAVE 24" MIN. PIGTAIL ON ENTRANCE CONDUCTOR.
2. LEAD PLUGS SHALL BE USED ON ALL MASONRY TYPE CONSTRUCTION TO SECURE CONDUIT STRAPS.

# FRANKLIN ELECTRIC COOPERATIVE

## PERMANENT METER POLE INSTALLATION SINGLE PHASE

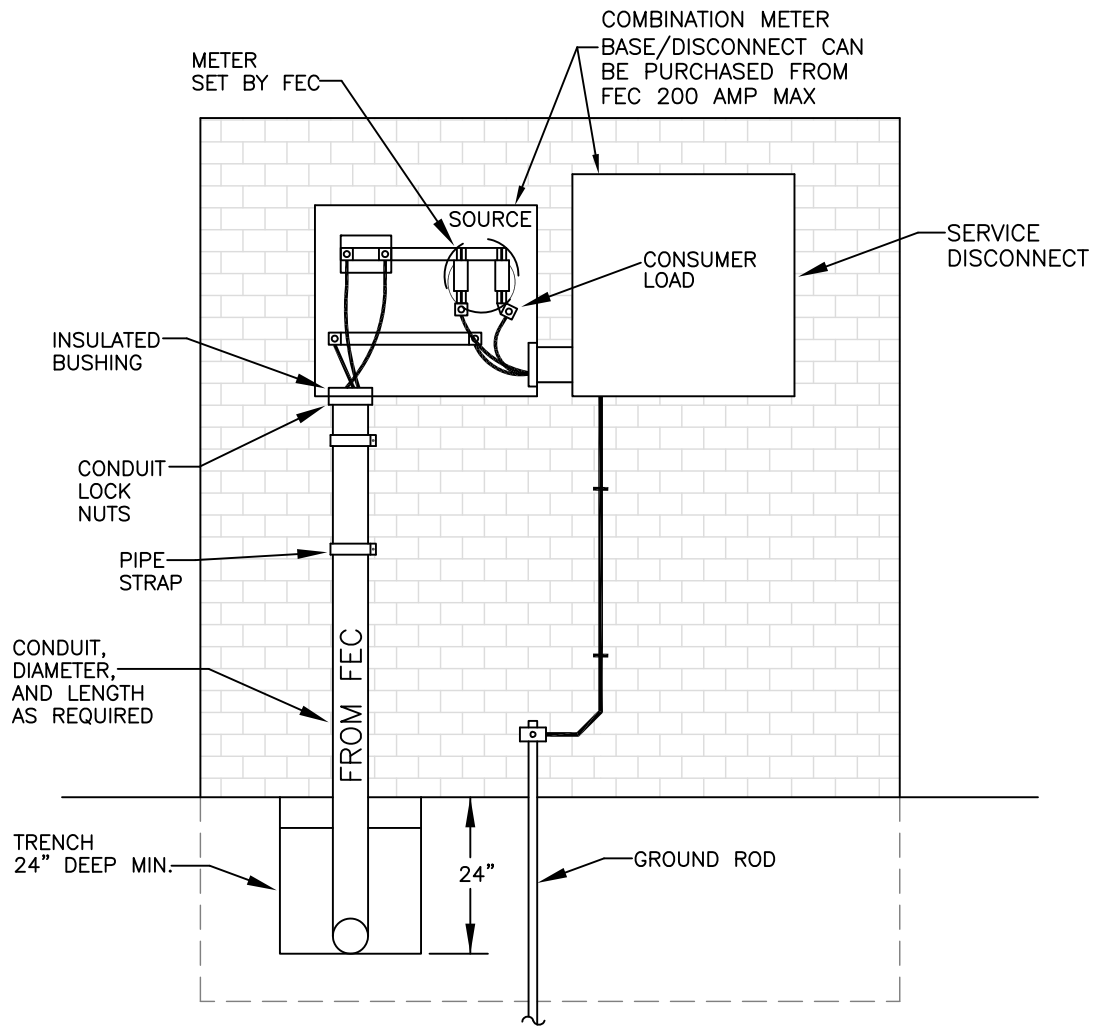


### NOTES:

1. THIS DIAGRAM IS INTENDED FOR USE AS A GUIDE. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF THE NESC AND NEC, EXCEPT THAT LOCAL CODES AND REGULATIONS HAVING JURISDICTION SHALL TAKE PRECEDENCE.
2. POLE HEIGHT 16' OR MORE ABOVE GROUND. (THIS WILL REQUIRE A POLE LENGTH MIN. OF 20' WITH 4' IN THE GROUND. TAMP WELL. GUY THIS POLE AS REQUIRED.)
3. MINIMUM AMPACITY 100 AMPS. (SIZE PER NEC)
4. A MAXIMUM OF (6) DISCONNECTS SHALL BE PERMITTED IN A DISTRIBUTION PANEL WITHOUT A MAIN DISCONNECT TO DISCONNECT ALL ELECTRICITY TO ALL DISTRIBUTION CIRCUITS.
5. ENTRANCE POLE MUST BE 6' MIN. FROM MOBILE HOME, AND 30' MAX. FROM MOBILE HOME.
6. IF LENGTH OF CONDUIT EXCEEDS 10', COUPLING IS PERMITTED ON END ADJACENT TO METER.
7. SERVICE ENTRANCE CABLE IS ALLOWED FOR RESIDENTIAL INSALLATIONS, BUT A WEATHERHEAD IS REQUIRED TO BE INSTALLED WITHIN 6" OF THE TOP OF THE POLE.

# FRANKLIN ELECTRIC COOPERATIVE

## PERMANENT METER INSTALLATION UNDERGROUND SOURCE



### NOTES:

1. METER BASE/DISCONNECT, SOLD BY FEC, INSTALLED BY MEMBER.
2. ALL EQUIPMENT INSTALLED BY THE MEMBER SHALL MEET THE REQUIREMENTS OF THE LATEST REVISION OF THE NATIONAL ELECTRIC CODE (NEC).
3. USE ONLY 3" SCHEDULE 40 GRAY ELECTRICAL CONDUIT.
4. FEC REPRESENTATIVE SHALL INSPECT MEMBER INSTALLATION BEFORE TRENCH IS BACKFILLED.
5. MEMBER SHALL CONSTRUCT FOUNDATION SUCH THAT FEC CONDUIT AND SWEEP CAN BE INSTALLED FLUSH AGAINST EXTERIOR WALL.

# FRANKLIN ELECTRIC COOPERATIVE

## UNDERGROUND TEMPORARY SERVICE INSTALLATION

