

## Spec #6

### **DIP POLE - UNDERGROUND SERVICE TO A METER ON A PEDESTAL**

SINGLE PHASE, 120/240 VOLTS, 3 WIRE SERVICE, 100 AMP MINIMUM

#### GENERAL

1. Member to obtain meter pan from Co-op and install at his/her expense.
2. All service entrance equipment to be supplied and installed on pedestal by member, including proper size conduit from meter base to below ground level. Conduit shall be galvanized steel or rigid non-metallic conduit (Schedule 80 PVC). It shall be of proper size as indicated below and securely fastened to pedestal with suitable clamps.
3. Member shall provide and install service entrance cable to reach from the top of designated Cooperative owned pole meter base on pedestal.

#### PEDESTAL SPECIFICATIONS

As shown in diagram on reverse side.

#### GROUNDING

1. Ground wire shall be one continuous length, without splice or joint, from main switch to grounding electrodes. Suitable clamp must connect ground wire securely to two driven ground rods - minimum 6' apart in undisturbed earth.
2. Grounding electrodes must be rods: 5/8" x 8' solid rod, either galvanized or copper clad.
3. PVC conduit installed on the pole and/or pedestal requires a 3 wire cable from the pole to the pedestal. If the metal conduit is used on either end, it must be bonded to the meter box and/or the service panel.
4. Metal conduit used on the pole and pedestal requires a 3 wire cable plus a ground wire bonded from the metal conduit to the meter box on the house or the service panel.
5. If metallic conduit is used from the meter box to the service panel, bonding bushings must be used at each location and a 3 wire cable may be use between the meter box and the service panel.
6. On all of the above, 2 ground rods must be installed at the pedestal.
7. All Grounding is to meet the N.E.C. codes for new construction.

## Spec #6

### NOTES

1. All installations to be made according to the diagram on reverse side.
2. All materials to be approved by the Underwriters Laboratories.
3. All wiring to be in conformance with the National Electric Code and the National Electric Safety Code, current edition, and certified by a Cooperative approved inspection agency.
4. Always have a qualified electrician take care of your wiring needs.
5. Members not following these minimum specifications may be refused service connection.
6. Service connections and/or meter approval shall be done only by authorized Cooperative personnel.
7. Reduced neutral may be allowed.
8. All service entrances will be located by Cooperative personnel and above clearances may be greater. Any change to the service entrance location without authorization from the Cooperative may incur an additional expense to the member.
9. Service to be inspected by an approved inspection agency.

### TRENCH

The trench depths specified are minimum and are measured from final grade.

The trench shall be dug so that the bottom has a level grade and the bottom of the trench shall be relatively smooth, undisturbed earth or tamped earth or sand. Large rocks, stones, and gravel in excess of one inch shall be removed from the bottom and sides of trench. Where this cannot be done, a three inch layer of clean masonry sand shall be placed in the bottom of the trench, and screened dirt (using a one inch mesh screen) shall be used for backfill. TRENCH SHALL NOT BE FILLED WITH EXCESS CONSTRUCTION MATERIALS SUCH AS CONCRETE BLOCK, LUMBER, DRYWALL, ETC.

If proper depth cannot be maintained from final grade, galvanized conduit or Schedule 80 PVC must be used. All trenches parallel to the building foundation shall be no closer than four feet.

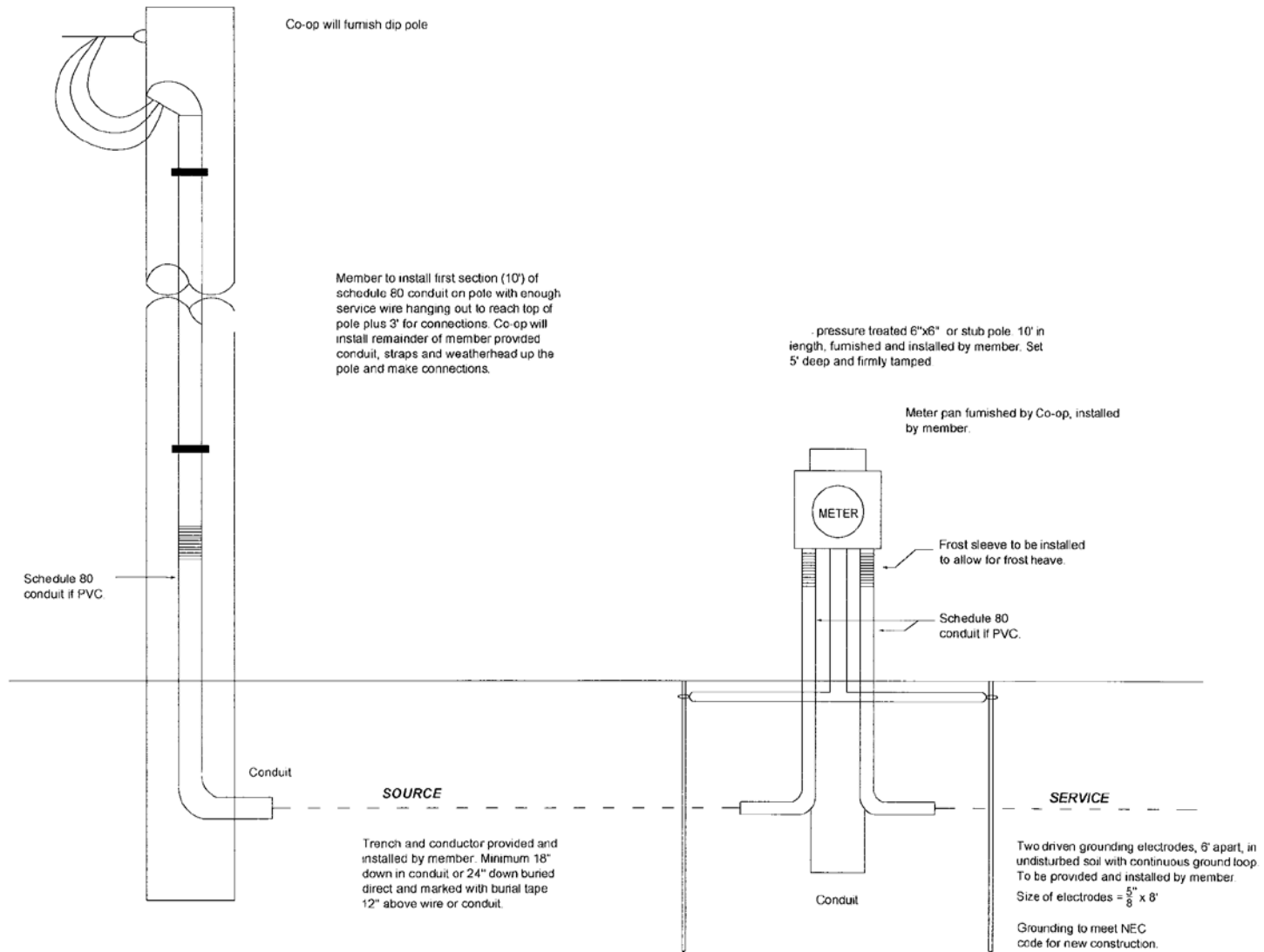
The trench shall be backfilled as described above as soon as possible after the placing of the cable. The top twelve inches of such backfill shall be well tamped while backfilling, and shall be banked over the top of the ditch to provide for settling of the backfill.

Duct shall be installed under driveways, patios, or other paved areas. Duct may be galvanized pipe, Type II Fiber duct or Schedule 80 PVC.

\*Members not following these minimum specifications may be refused service connection.

ITEM	MATERIAL			
		100 AMP SERVICE	200 AMP SERVICE	400 AMP SERVICE
1	Copper Wire, Type THW in conduit	#4	#2/0	500 MCM
2	Aluminum Wire, Type THW in Conduit	#2	#4/0	750 MCM
3	Minimum Conduit Size	2"	2"	3"   3 1/2"
4	Minimum Conduit Size For UG Service Conductors	2"	2"	4"
5	Copper Ground Wire To Driven Grounding Electrodes	Minimum #6	Minimum #4	Minimum #1/0

# Spec #6



**DIP POLE - UNDERGROUND SERVICE TO METER AND SERVICE  
DISCONNECT ON PEDESTAL**

SINGLE PHASE, 120/240 VOLTS, 3 WIRE SERVICE, 100 AMP MINIMUM

**GENERAL**

1. Member to obtain meter pan from Co-op or independently purchase a meter cabinet disconnect combination and install at his/her expense.
2. All service entrance equipment to be supplied and installed on pedestal by member, including proper size conduit from meter base to below ground level. Conduit shall be galvanized steel or rigid non-metallic conduit (Schedule 80 PVC). It shall be of proper size as indicated below and securely fastened to pedestal with suitable clamps.
3. Member shall provide and install service entrance cable to reach from the top of designated Cooperative owned pole to meter base on pedestal.

**PEDESTAL SPECIFICATIONS**

As shown in diagram on reverse side.

**GROUNDING**

1. Ground wire shall be one continuous length, without splice or joint, from main switch to grounding electrodes. Suitable clamp must connect ground wire securely to two driven ground rods - minimum 6' apart in undisturbed earth.
2. Grounding electrodes must be rods: 5/8" x 8' solid rod, either galvanized or copper clad.
3. PVC conduit installed on the pole and/or pedestal requires a 3 wire cable from the pole to the pedestal. If the metal conduit is used on either end, it must be bonded to the meter box and/or the service panel.
4. Metal conduit used on the pole and pedestal requires a 3 wire cable plus a ground wire bonded from the metal conduit to the meter box on the pedestal or the service panel.
5. If metallic conduit is used from the meter box to the service panel, bonding bushings must be used at each location and a 3 wire cable may be use between the meter box and the service panel.
6. On all of the above, 2 ground rods must be installed at the pedestal.
7. All grounding is to meet the N.E.C. standards for new construction.

## Spec #7

### **NOTES**

1. All installations to be made according to the diagram on reverse side.
2. All materials to be approved by the Underwriters Laboratories.
3. All wiring to be in conformance with the National Electric Code and the National Electric Safety Code, current edition, and certified by a Cooperative approved inspection agency.
4. Always have a qualified electrician take care of your wiring needs.
5. Members not following these minimum specifications may be refused service connection.
6. Service connections and/or meter approval shall be done only by authorized Cooperative personnel.
7. Reduced neutral may be allowed.
8. All service entrances will be located by Cooperative personnel and above clearances may be greater. Any change to the service entrance location without authorization from the Cooperative may incur an additional expense to the member.
9. Service to be inspected by an approved inspection agency.

### **TRENCH**

The trench depths specified are minimum and are measured from final grade.

The trench shall be dug so that the bottom has a level grade and the bottom of the trench shall be relatively smooth, undisturbed earth or tamped earth or sand. Large rocks, stones, and gravel in excess of one inch shall be removed from the bottom and sides of trench. Where this cannot be done, a three inch layer of clean masonry sand shall be placed in the bottom of the trench, and screened dirt (using a one inch mesh screen) shall be used for backfill. TRENCH SHALL NOT BE FILLED WITH EXCESS CONSTRUCTION MATERIALS SUCH AS CONCRETE BLOCK, LUMBER, DRYWALL, ETC.

If proper depth cannot be maintained from final grade, galvanized conduit or Schedule 80 PVC must be used. All trenches parallel to the building foundation shall be no closer than four feet.

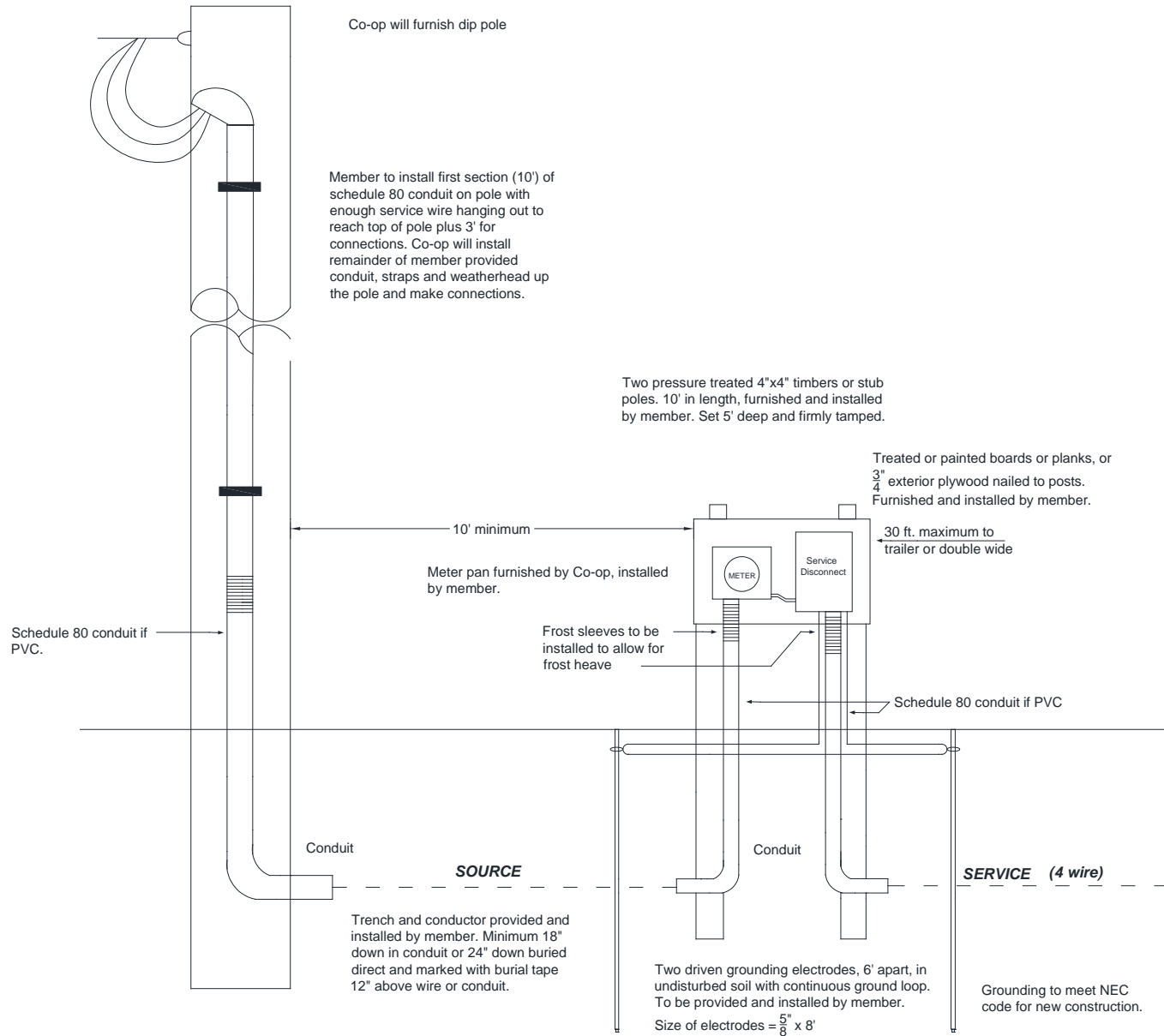
The trench shall be backfilled as described above as soon as possible after the placing of the cable. The top twelve inches of such backfill shall be well tamped while backfilling, and shall be banked over the top of the ditch to provide for settling of the backfill.

Duct shall be installed under driveways, patios, or other paved areas. Duct may be galvanized pipe, Type II Fiber duct or Schedule 80 PVC.

\*Members not following these minimum specifications may be refused service connection.

ITEM	MATERIAL	100 AMP SERVICE			200 AMP SERVICE		400 AMP SERVICE	
1	Copper Wire, Type THW in conduit	#4	#2/0	500 MCM				
2	Aluminum Wire, Type THW in Conduit	#2	#4/0	750 MCM				
3	Minimum Conduit Size	2"	2"	3"	3 1/2"			
4	Minimum Conduit Size For UG Service Conductors	2"	2"	4"				
5	Copper Ground Wire To Driven Grounding Electrodes	Minimum #6	Minimum #4	Minimum #1/0				

# Spec #7



## Spec # 8

### **DIP POLE - UNDERGROUND SERVICE TO METER ON HOUSE**

SINGLE PHASE, 120/240 VOLTS, 3 WIRE SERVICE, 100 AMP MINIMUM

#### **GENERAL**

1. Member to obtain meter pan from Co-op and install on house at his/her expense.
2. All service entrance equipment to be supplied and installed on house by member, including proper size conduit from meter base to below ground level. Conduit shall be galvanized steel or rigid non-metallic conduit (Schedule 80 PVC). It shall be of proper size as indicated below and securely fastened to side of house by suitable clamps.
3. Main switch and service entrance panel shall be located at a readily accessible location nearest the point of entrance of the service conductors in the house.
4. Member shall provide and install service entrance cable to reach from top of designated Cooperative owned pole to meter base on house.

#### **GROUNDING**

1. Ground wire shall be one continuous length, without splice or joint, from main switch to grounding electrodes. Suitable clamp must connect ground wire securely to two driven ground rods - minimum 6' apart in undisturbed earth.
2. Grounding electrodes must be rods: 5/8" x 8' solid rod, either galvanized or copper clad.
3. PVC conduit installed on the pole and/or house requires a 3 wire cable from the pole to the house. If the metal conduit is used on either end, it must be bonded to the meter box and/or the service panel.
4. Metal conduit used on the pole and house requires a 3 wire cable plus a ground wire bonded from the metal conduit to the meter box on the house or the service panel.
5. If metallic conduit is used from the meter box to the service panel, bonding bushings must be used at each location and a 3 wire cable may be use between the meter box and the service panel.
6. On all of the above, 2 ground rods must be installed at the house.
7. All grounding must meet the N.E.C. codes for new construction.

## Spec # 8

### **NOTES**

1. All installations to be made according to the diagram on reverse side.
2. All materials to be approved by the Underwriters Laboratories.
3. All wiring to be in conformance with the National Electric Code and the National Electric Safety Code, current edition, and certified by a Cooperative approved inspection agency.
4. Always have a qualified electrician take care of your wiring needs.
5. Members not following these minimum specifications may be refused service connection.
6. Service connections and/or meter approval shall be done only by authorized Cooperative personnel.
7. Reduced neutral may be allowed.
8. All service entrances will be located by Cooperative personnel and above clearances may be greater. Any change to the service entrance location without authorization from the Cooperative may incur an additional expense to the member.
9. Service to be inspected by an approved inspection agency.

### **TRENCH**

The trench depths specified are minimum and are measured from final grade.

The trench shall be dug so that the bottom has a level grade and the bottom of the trench shall be relatively smooth, undisturbed earth or tamped earth or sand. Large rocks, stones, and gravel in excess of one inch shall be removed from the bottom and sides of trench. Where this cannot be done, a three inch layer of clean masonry sand shall be placed in the bottom of the trench, and screened dirt (using a one inch mesh screen) shall be used for backfill. TRENCH SHALL NOT BE FILLED WITH EXCESS CONSTRUCTION MATERIALS SUCH AS CONCRETE BLOCK, LUMBER, DRYWALL, ETC.

If proper depth cannot be maintained from final grade, galvanized conduit or Schedule 80 PVC must be used. All trenches parallel to the building foundation shall be no closer than four feet.

The trench shall be backfilled as described above as soon as possible after the placing of the cable. The top twelve inches of such backfill shall be well tamped while backfilling, and shall be banked over the top of the ditch to provide for settling of the backfill.

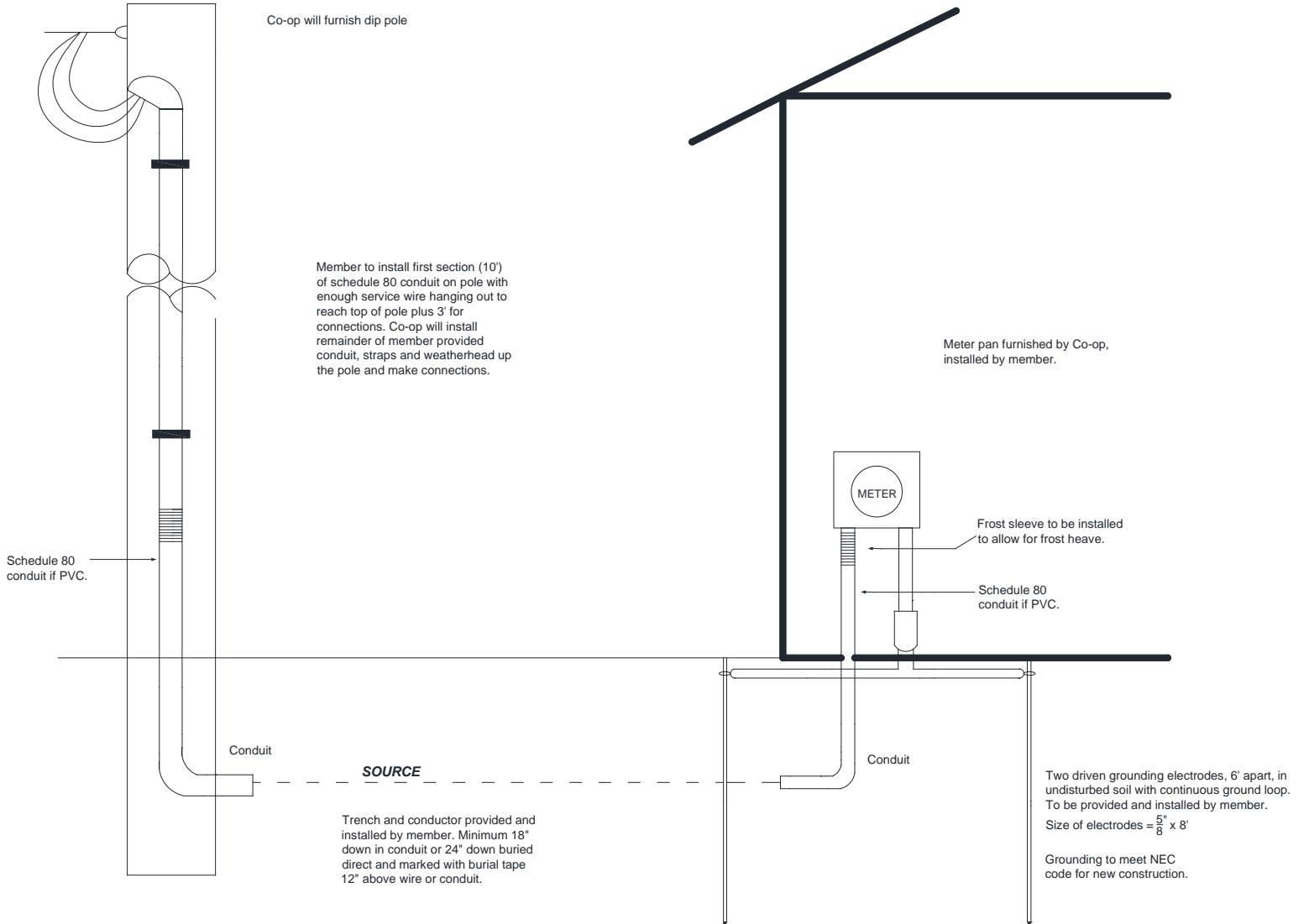
Duct shall be installed under driveways, patios, or other paved areas. Duct may be either galvanized pipe, Type II Fiberduct or Schedule 80 PVC.

\*Members not following these minimum specifications may be refused service connection.

ITEM	MATERIAL	100 AMP SERVICE	200 AMP SERVICE	400 AMP SERVICE	
1	Copper Wire, Type THW in conduit	#4	#2/0	500 MCM	
2	Aluminum Wire, Type THW in Conduit	#2	#4/0	750 MCM	
3	Minimum Conduit Size	2"	2"	3"	3 1/2"
4	Minimum Conduit Size For UG Service Conductors	2"	2"	4"	
5	Copper Ground Wire To Driven Grounding Electrodes	Minimum #6	Minimum #4	Minimum #1/0	



# Spec # 8



## OVERHEAD METER POLE

SINGLE PHASE, 120/240 VOLTS, 100 amps Minimum

### GENERAL

1. The Co-op will supply, install, and own the pole, service drop to the pole and the service wire attachments on the pole. All service entrance equipment to be supplied and installed on pole by member.
2. Member to obtain meter pan from Co-op or independently purchase a meter cabinet disconnect combination and install on pole at his/her expense.
3. A weather head shall be used of proper type for the number and size of wire used. All installations for overhead or underground service where a disconnect is used, it shall be a properly sized weatherproof fused or breaker type disconnect switch.
4. Installation of a service entrance on an existing pole only at approval of Co-op's designated personnel.
5. The Cooperative will furnish and install the meter pole, for new installations, for a cost set forth in the fee schedule.

### GROUNDING

1. Ground wire shall be one continuous length, without splice or joint, from main switch to grounding electrodes. Suitable clamp must connect ground wire securely to two driven ground rods - minimum 6' apart in undisturbed earth.
2. Grounding electrodes must be rods: 5/8" x 8' solid rod, either galvanized or copper clad.

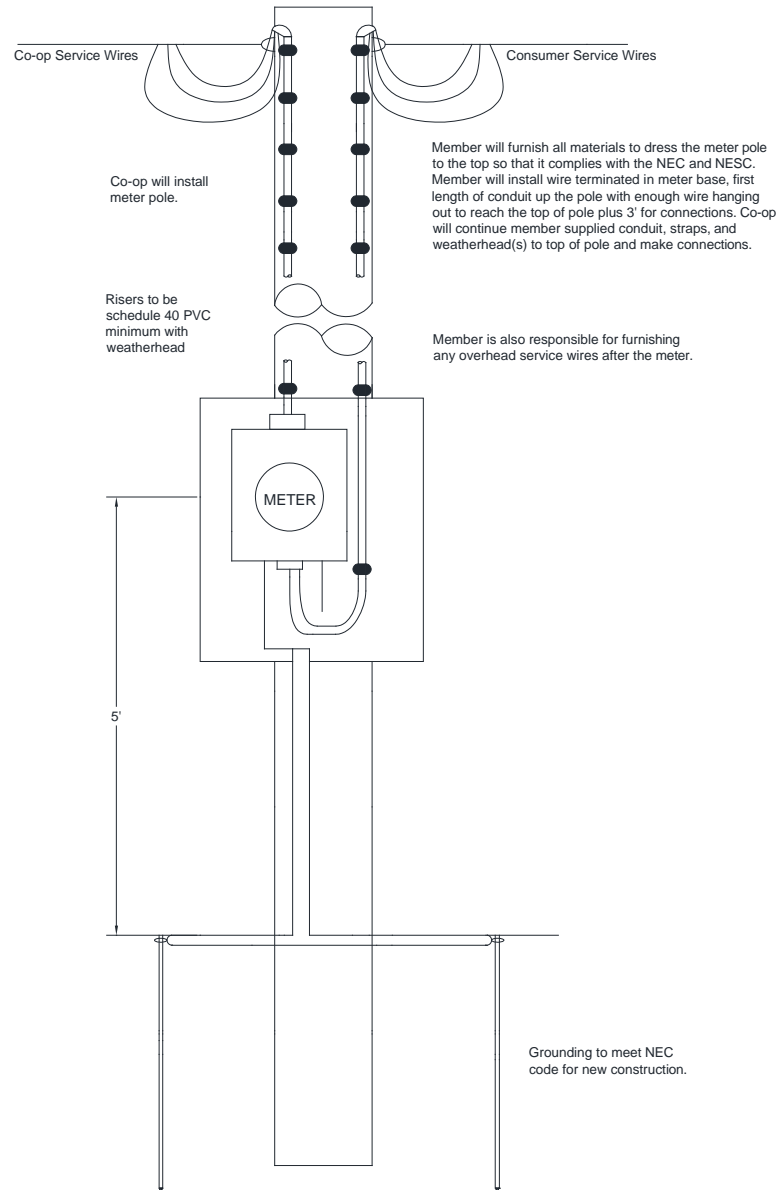
## Spec #5

### NOTES

1. All installations to be made according to the diagram on reverse side.
2. All materials to be approved by the Underwriters Laboratories.
3. All wiring to be in conformance with the National Electric Code and the National Electric Safety Code, current edition, and certified by a Cooperative approved inspection agency.
4. Always have a qualified electrician take care of your wiring needs.
5. Members not following these minimum specifications may be refused service connection.
6. Service connections and/or meter approval shall be done only by authorized Cooperative personnel.
7. Reduced neutral may be allowed.
8. All service entrances will be located by Cooperative personnel and above clearances may be greater. Any change to the service entrance location without authorization from the Cooperative may incur an additional expense to the member.
9. Service to be inspected by an approved inspection agency.

ITEM	MATERIAL	100 AMP SERVICE			200 AMP SERVICE		400 AMP SERVICE	
1	Copper Wire, Type THW in conduit	#4	#2/0	500 MCM				
2	Aluminum Wire, Type THW in Conduit	#2	#4/0	750 MCM				
3	Minimum Conduit Size	2"	2"	3"	3 1/2"			
4	Minimum Conduit Size For UG Service Conductors	2"	2"	4"				
5	Copper Ground Wire To Driven Grounding Electrodes	Minimum #6	Minimum #4	Minimum #1/0				

# Spec #5



## Spec #4

### **METER ON TRANSFORMER POLE-** **Service Disconnect on Pedestal**

#### **SINGLE PHASE, 120/240 VOLTS, 3 WIRE SERVICE, 100 AMP MINIMUM**

##### **GENERAL**

1. Member to obtain meter pan from Co-op and install on pole at his/her expense.
2. Member will supply the conduit, conductor, and weather head.
3. All service entrance equipment from the meter pan to the service disconnect is to be supplied and installed by member, including proper size conduit from meter base to 12" below ground level. Conduit shall be galvanized steel or rigid non-metallic conduit (Schedule 80 PVC). It shall be of proper size as indicated below and securely fastened to the pole with suitable clamps.
4. **Main switch and service disconnect panel shall be located at a readily accessible location within 30 ft. of a trailer or double wide.**

##### **GROUNDING**

1. Ground wire shall be one continuous length, without splice or joint, from main switch to grounding electrodes. Suitable clamp must connect ground wire securely to two driven ground rods - minimum 6' apart in undisturbed earth.
2. Grounding electrodes must be rods: 5/8" x 8' solid rod, either galvanized or copper clad.
3. PVC conduit installed on the pole and/or pedestal requires a 3 wire cable from the pole to the pedestal. If the metal conduit is used on either end, it must be bonded to the meter box and/or the service panel.
4. Metal conduit used on the pole and pedestal requires a 3 wire cable plus a ground wire bonded from the metal conduit to the meter box on the pedestal or the service panel.
5. If metallic conduit is used from the meter box to the service panel, bonding bushings must be used at each location and a 3 wire cable may be use between the meter box and the service panel.
6. On all of the above, 2 ground rods must be installed at the pedestal and 1 at the meter location.
7. All Grounding is to meet the N.E.C. codes for new construction.

##### **NOTES**

1. All installations to be made according to the diagram on reverse side.
2. All materials to be approved by the Underwriters Laboratories.
3. All wiring to be in conformance with the National Electric Code and the National Electric Safety Code, current edition, and certified by a Cooperative approved inspection agency.
4. Always have a qualified electrician take care of your wiring needs.
5. Members not following these minimum specifications may be refused service connection.
6. Service connections and/or meter approval shall be done only by authorized Cooperative personnel.
7. Reduced neutral may be allowed.
8. All service entrances will be located by Cooperative personnel and above clearances may be greater. Any change to the service entrance location without authorization from the Cooperative may incur an additional expense to the member.
9. Service to be inspected by an approved inspection agency.

## Spec #4

### TRENCH

The trench depths specified are minimum and are measured from final grade.

The trench shall be dug so that the bottom has a level grade and the bottom of the trench shall be relatively smooth, undisturbed earth or tamped earth or sand. Large rocks, stones, and gravel in excess of one inch shall be removed from the bottom and sides of trench. Where this cannot be done, a three inch layer of clean masonry sand shall be placed in the bottom of the trench, and screened dirt (using a one inch mesh screen) shall be used for backfill. TRENCH SHALL NOT BE FILLED WITH EXCESS CONSTRUCTION MATERIALS SUCH AS CONCRETE BLOCK, LUMBER, DRYWALL, ETC.

If proper depth cannot be maintained from final grade, galvanized conduit or Schedule 80 PVC must be used. All trenches parallel to the building foundation shall be no closer than four feet.

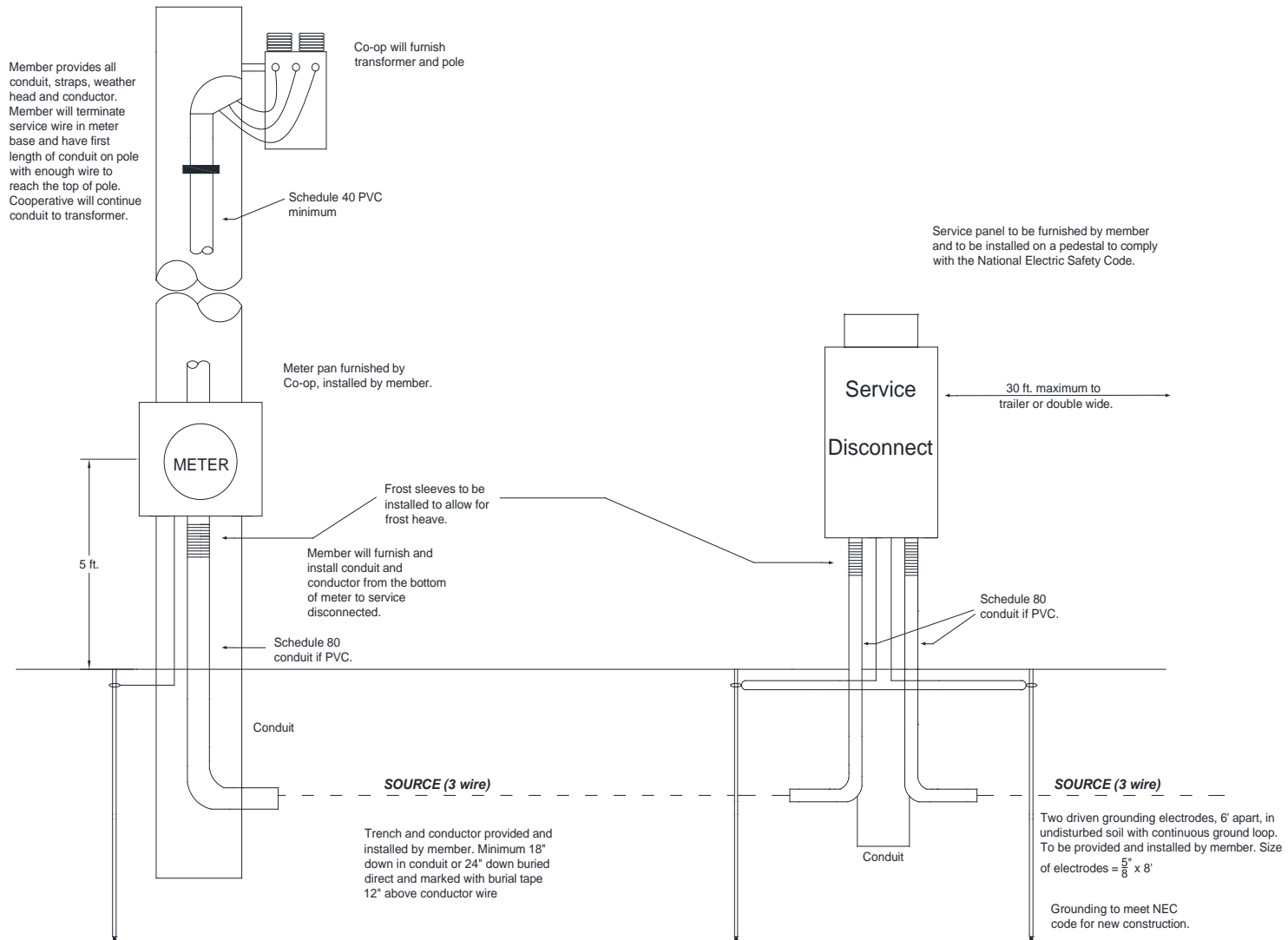
The trench shall be backfilled as described above as soon as possible after the placing of the cable. The top twelve inches of such backfill shall be well tamped while backfilling, and shall be banked over the top of the ditch to provide for settling of the backfill.

Duct shall be installed under driveways, patios, or other paved areas. Duct may be galvanized pipe, Type II Fiber duct or Schedule 80 PVC.

\*Members not following these minimum specifications may be refused service connection.

ITEM	MATERIAL	400 AMP SERVICE		
		100 AMP SERVICE	200 AMP SERVICE	400 AMP SERVICE
1	Copper Wire, Type THW in conduit	#4	#2/0	500 MCM
2	Aluminum Wire, Type THW in Conduit	#2	#4/0	750 MCM
3	Minimum Conduit Size	2"	2"	3"   3 1/2"
4	Minimum Conduit Size For UG Service Conductors	2"	2"	4"
5	Copper Ground Wire To Driven Grounding Electrodes	Minimum #6	Minimum #4	Minimum #1/0

# Spec #4



Spec # 3

**METER ON TRANSFORMER POLE -UNDERGROUND SERVICE  
TO HOUSE**

**SINGLE PHASE, 120/240 VOLTS, 3 WIRE SERVICE, 100 AMP MINIMUM**

**GENERAL**

1. Member to obtain meter pan from Co-op and install on pole at his/her expense.
2. Member will supply the conduit, conductor, and weather head.
3. All service entrance equipment from the meter pan to the house is to be supplied and installed by member, including proper size conduit from meter base to below ground level. Conduit shall be galvanized steel or rigid non-metallic conduit (Schedule 80 PVC). It shall be of proper size as indicated below and securely fastened to the pole with suitable clamps.
4. **No disconnect switches will be allowed to be located on a transformer pole, meter pan only.**
5. Main switch and service entrance panel shall be located at a readily accessible location nearest the point of entrance of the service conductors in the house.

**GROUNDING**

1. Ground wire shall be one continuous length, without splice or joint, from meter to grounding electrode. Suitable clamp must connect groundwire securely to one driven ground rods - in undisturbed earth. At the house, 2 ground rods must be installed six feet apart with a continuous length of copper.
2. Grounding electrodes must be rods: 5/8" x 8' solid rod, either galvanized or copperclad.
3. PVC conduit installed on the pole and/or house requires a 3 wire cable from the pole to the house. If the metal conduit is used on either end, it must be bonded to the meter box and/or the service panel.
4. Metal conduit used on the pole and house requires a 3 wire cable plus a ground wire bonded from the metal conduit to the meter box on the house or the service panel.
5. If metallic conduit is used from the meter box to the service panel, bonding bushings must be used at each location and a 3 wire cable may be use between the meter box and the service panel.
6. On all of the above, 2 ground rods must be installed at the house and 1 at the meter location.
7. All grounding to meet the N.E.C. codes for new construction.



## Spec # 3

### NOTES

1. All installations to be made according to the diagram on reverse side.
2. All materials to be approved by the Underwriters Laboratories.
3. All wiring to be in conformance with the National Electric Code and the National Electric Safety Code, current edition, and certified by a Cooperative approved inspection agency.
4. Always have a qualified electrician take care of your wiring needs.
5. Members not following these minimum specifications may be refused service connection.
6. Service connections and/or meter approval shall be done only by authorized Cooperative personnel.
7. Reduced neutral may be allowed.
8. All service entrances will be located by Cooperative personnel and above clearances may be greater. Any change to the service entrance location without authorization from the Cooperative may incur an additional expense to the member.
9. **Service to be inspected by an approved inspection agency.**

### TRENCH

The trench depths specified are minimum and are measured from final grade.

The trench shall be dug so that the bottom has a level grade and the bottom of the trench shall be relatively smooth, undisturbed earth or tamped earth or sand. Large rocks, stones, and gravel in excess of one inch shall be removed from the bottom and sides of trench.

Where this cannot be done, a three inch layer of clean masonry sand shall be placed in the bottom of the trench, and screened dirt (using a one inch mesh screen) shall be used for backfill. TRENCH SHALL NOT BE FILLED WITH EXCESS CONSTRUCTION MATERIALS SUCH AS CONCRETE BLOCK, LUMBER, DRYWALL, ETC.

If proper depth cannot be maintained from final grade, galvanized conduit or Schedule 80 PVC must be used. All trenches parallel to the building foundation shall be no closer than four feet.

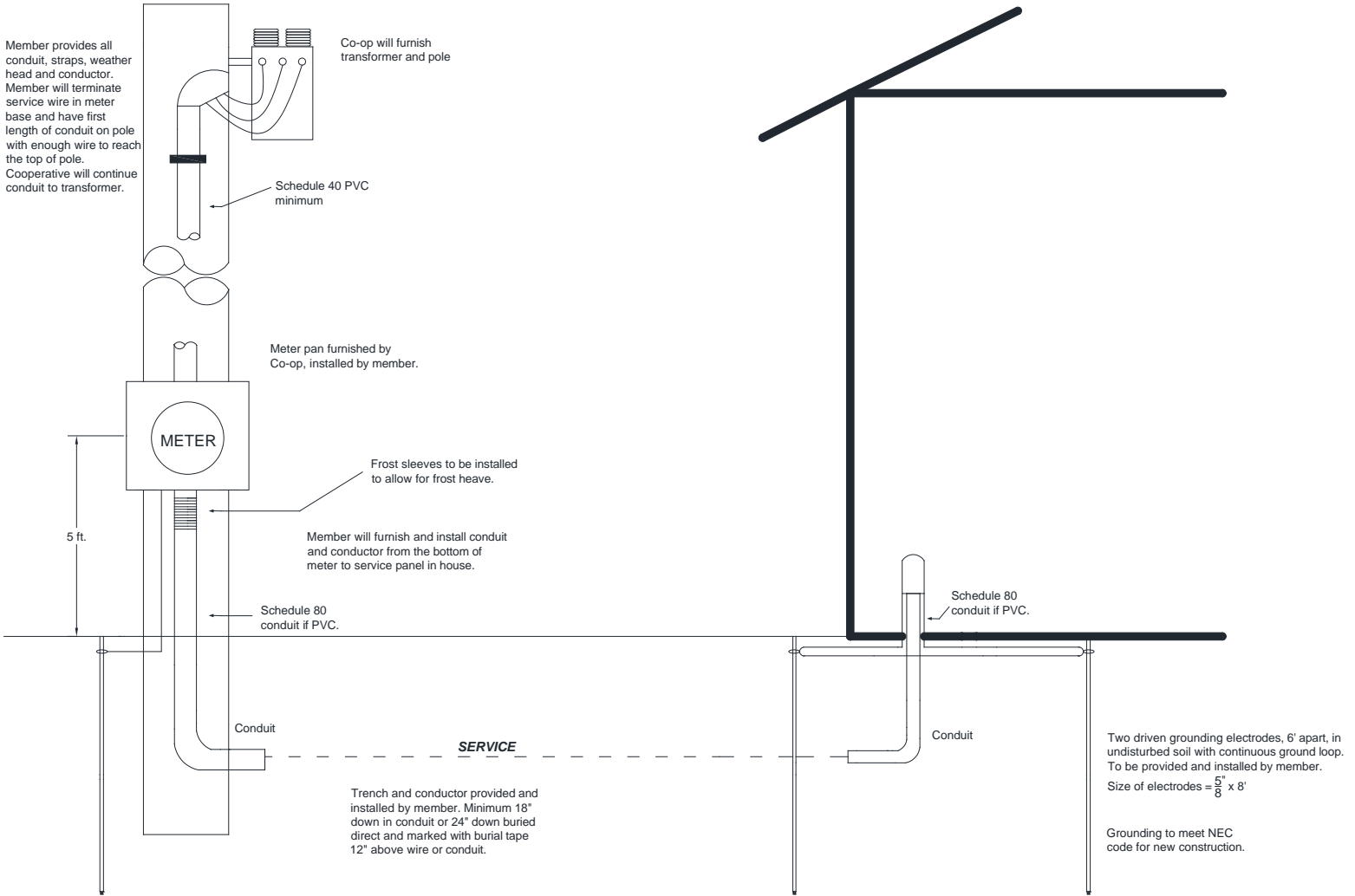
The trench shall be backfilled as described above as soon as possible after the placing of the cable. The top twelve inches of such backfill shall be well tamped while backfilling, and shall be banked over the top of the ditch to provide for settling of the backfill.

Duct shall be installed under driveways, patios, or other paved areas. Duct may be either galvanized pipe, Type II Fiberduct or Schedule 80 PVC.

\*Members not following these minimum specifications may be refused service connection.

ITEM	MATERIAL	100 AMP SERVICE	200 AMP SERVICE	400 AMP SERVICE	
1	Copper Wire, Type THW in conduit	#4	#2/0	500 MCM	
2	Aluminum Wire, Type THW in Conduit	#2	#4/0	750 MCM	
3	Minimum Conduit Size	2"	2"	3"	3 1/2"
4	Minimum Conduit Size For UG Service Conductors	2"	2"	4"	
5	Copper Ground Wire To Driven Grounding Electrodes	Minimum #6	Minimum #4	Minimum #1/0	

# Spec # 3



## Spec # 2

### **METER POLE**

#### **SINGLE PHASE, 120/240 VOLTS, 3 WIRE SERVICE, 100 AMP MINIMUM**

##### **GENERAL**

1. The Co-op will supply, install, and own the pole, service drop to the pole and the service wire attachments on the pole. All service entrance equipment to be supplied and installed on pole by member.
2. Member to obtain meter pan from Co-op or independently purchase a meter cabinet disconnect combination and install on pole at his/her expense.
3. A weather head shall be used of proper type for the number and size of wire used. All installations for overhead or underground service where a disconnect is used, it shall be a properly sized weatherproof fused or breaker type disconnect switch.
4. Installation of a service entrance on an existing pole only at approval of Co-op's designated personnel.
5. The cooperative will furnish and install the meter pole at a cost set forth in the standard fee schedule

##### **GROUNDING**

1. Ground wire shall be one continuous length, without splice or joint, from main switch to grounding electrodes. Suitable clamp must connect ground wire securely to two driven ground rods - minimum 6' apart in undisturbed earth.
2. Grounding electrodes must be rods: 5/8" x 8' solid rod, either galvanized or copper clad.
3. All grounding must meet the N.E.C. codes for new construction.

##### **NOTES**

1. All installations to be made according to the diagram on reverse side.
2. All materials to be approved by the Underwriters Laboratories.
3. All wiring to be in conformance with the National Electric Code and the National Electric Safety Code, current edition, and certified by a Cooperative approved inspection agency.
4. Always have a qualified electrician take care of your wiring needs.
5. Members not following these minimum specifications may be refused service connection.
6. Service connections and/or meter approval shall be done only by authorized Cooperative personnel.
7. Reduced neutral may be allowed.
8. All service entrances will be located by Cooperative personnel and above clearances may be greater. Any change to the service entrance location without authorization from the Cooperative may incur an additional expense to the member.
9. Service to be inspected by an approved inspection agency.

## Spec # 2

### **TRENCH**

The trench depths specified are minimum and are measured from final grade.

The trench shall be dug so that the bottom has a level grade and the bottom of the trench shall be relatively smooth, undisturbed earth or tamped earth or sand. Large rocks, stones, and gravel in excess of one inch shall be removed from the bottom and sides of trench. Where this cannot be done, a three inch layer of clean masonry sand shall be placed in the bottom of the trench, and screened dirt (using a one inch mesh screen) shall be used for backfill. TRENCH SHALL NOT BE FILLED WITH EXCESS CONSTRUCTION MATERIALS SUCH AS CONCRETE BLOCK, LUMBER, DRYWALL, ETC.

If proper depth cannot be maintained from final grade, galvanized conduit or Schedule 80 PVC must be used. All trenches parallel to the building foundation shall be no closer than four feet.

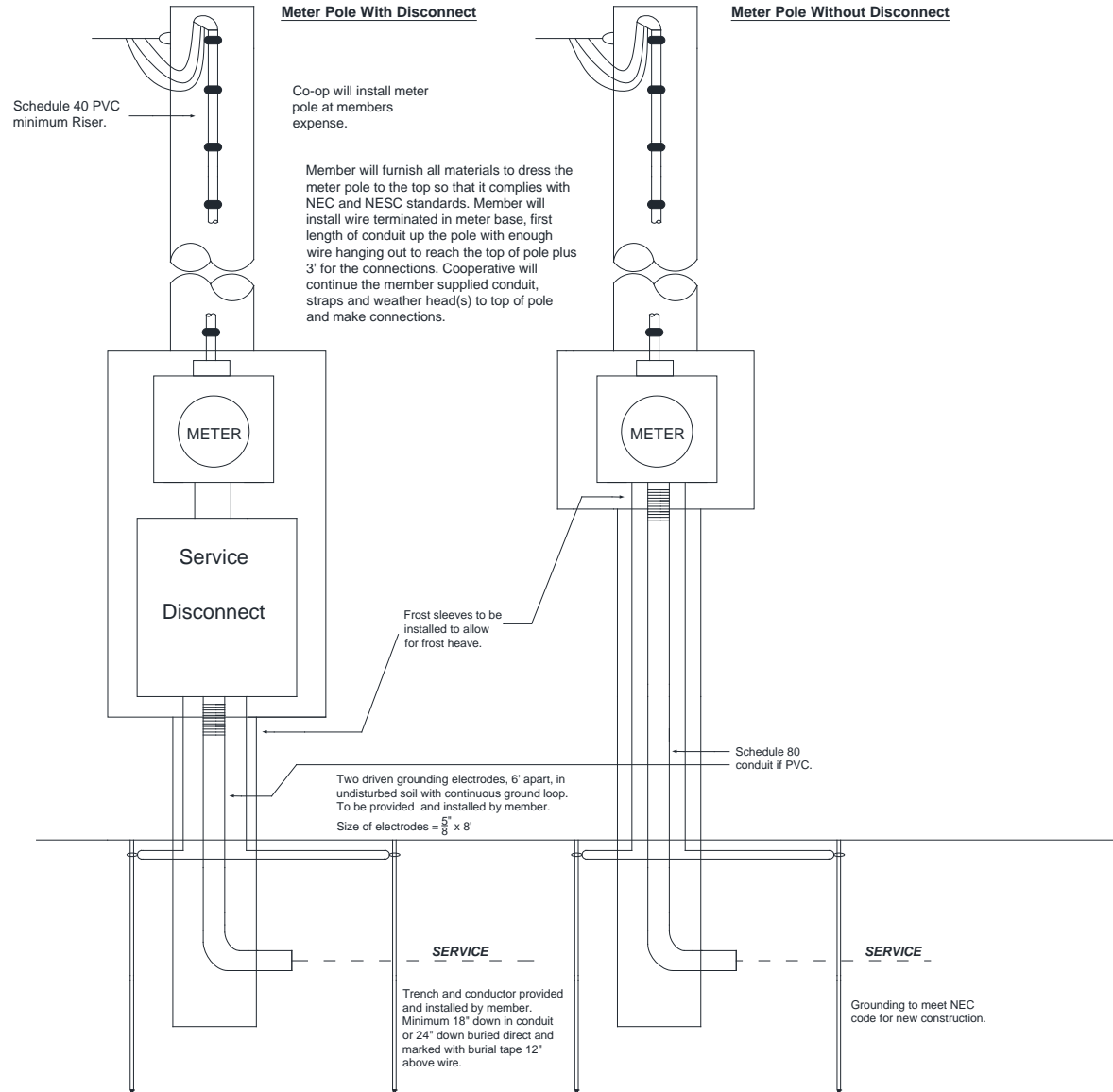
The trench shall be backfilled as described above as soon as possible after the placing of the cable. The top twelve inches of such backfill shall be well tamped while backfilling, and shall be banked over the top of the ditch to provide for settling of the backfill.

Duct shall be installed under driveways, patios, or other paved areas. Duct may be galvanized pipe, Type II Fiber duct or Schedule 80 PVC.

**\*Members not following these minimum specifications may be refused service connection.**

ITEM	MATERIAL	100 AMP SERVICE	200 AMP SERVICE	400 AMP SERVICE	
1	Copper Wire, Type THW in conduit	#4	#2/0	500 MCM	
2	Aluminum Wire, Type THW in Conduit	#2	#4/0	750 MCM	
3	Minimum Conduit Size	2"	2"	3"	3 1/2"
4	Minimum Conduit Size For UG Service Conductors	2"	2"	4"	
5	Copper Ground Wire To Driven Grounding Electrodes	Minimum #6	Minimum #4	Minimum #1/0	

# Spec # 2



**OVERHEAD SERVICE ATTACHMENT TO SIDE OF HOUSE**

**SINGLE PHASE, 120/240 VOLTS, 3 WIRE SERVICE, 100 AMP MINIMUM**

**GENERAL**

1. The Co-op will supply, install, and own the service drop to house and the service wire attachments on the house. All service entrance equipment, including weather head, is to be supplied and installed by member.
2. Member to obtain meter pan from Co-op and install on house at his/her expense. A weather head shall be used of proper type for the number and size of wire used. Height of weather head shall not be less than twelve feet above ground level.
3. Conduit, if used, shall be rigid galvanized steel, rigid aluminum, Schedule 40 PVC or electric metallic tubing. It shall be of proper size, as indicated below, and securely fastened to side of house.
4. From meter pan to main switch, installations may be either service entrance cable or wire in conduit, as desired by member. If cable is used from meter pan to main switch, a non-watertight connector may be used at bottom of meter pan.
5. Main switch and panel box shall be located at a readily accessible location nearest the point of entrance of the service entrance conductors.

**GROUNDING**

1. Ground wire shall be one continuous length, without splice or joint, from main switch to grounding electrodes. Suitable clamp must connect ground wire securely to two driven ground rods - minimum 6' apart in undisturbed earth.
2. Grounding electrodes must be rods: 5/8" x 8' solid rod, either galvanized or copper clad.
3. Grounding must meet the N.E.C. codes for new construction.

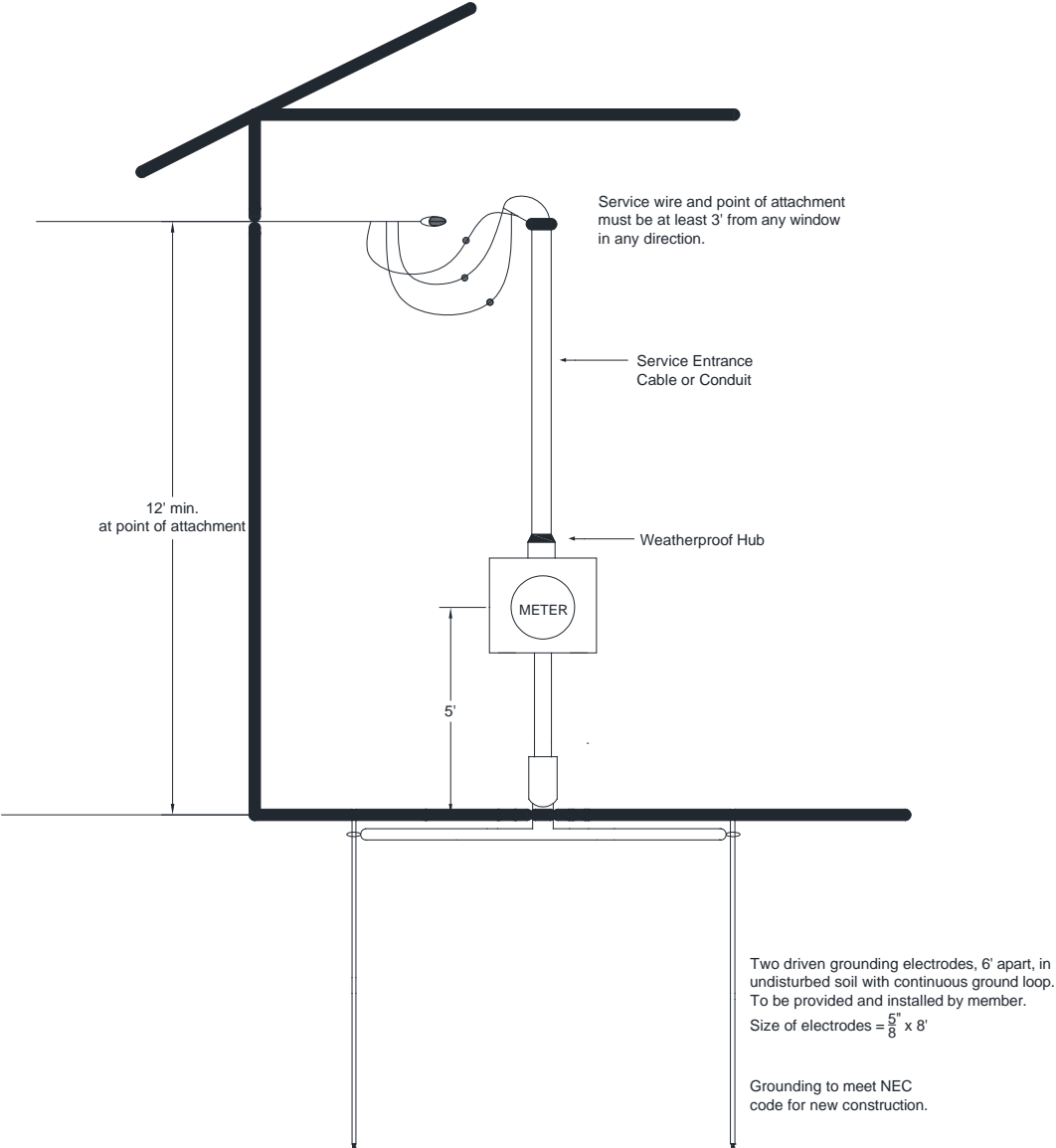
# Spec #11

## NOTES

1. All installations to be made according to the diagram on reverse side.
2. All materials to be approved by the Underwriters Laboratories.
3. All wiring to be in conformance with the National Electric Code and the National Electric Safety Code, current edition, and certified by a Cooperative approved inspection agency.
4. Always have a qualified electrician take care of your wiring needs.
5. Members not following these minimum specifications may be refused service connection.
6. Service connections and/or meter approval shall be done only by authorized Cooperative personnel.
7. Reduced neutral may be allowed.
8. All service entrances will be located by Cooperative personnel and above clearances may be greater. Any change to the service entrance location without authorization from the Cooperative may incur an additional expense to the member.

ITEM	MATERIAL	100 AMP SERVICE			200 AMP SERVICE		400 AMP SERVICE	
1	Copper Wire, Type THW in conduit	#4	#2/0	500 MCM				
2	Aluminum Wire, Type THW in Conduit	#2	#4/0	750 MCM				
3	Minimum Conduit Size	2"	2"	3"	3 1/2"			
4	Minimum Conduit Size For UG Service Conductors	2"	2"	4"				
5	Copper Ground Wire To Driven Grounding Electrodes	Minimum #6	Minimum #4	Minimum #1/0				

Spec #11





## Spec #12

### ROOF RISER

SINGLE PHASE, 120/240 VOLTS, 3 WIRE SERVICE, 100 AMP

#### **MINIMUM GENERAL**

1. The Co-op will supply, install, and own the service drop to mast and the service wire attachments on the mast. All service entrance equipment, including mast and weatherhead, is to be supplied and installed by member.
2. Member to obtain meter pan from Co-op and install on house at his/her expense. A weatherhead shall be used of proper type for the number and size of wire used.
3. Roof riser shall only be rigid galvanized steel conduit, of size indicated below, and securely fastened to building. It shall be of length such that the lowest point of service wire shall be a minimum of eighteen inches above roof if within four feet from edge of roof.
4. Roof riser passage through roof shall be completely waterproof.
5. From meter pan to main switch, installations may be either service entrance cable or wire in conduit, as desired by member. If cable is used from meter pan to main switch, a non-watertight connector may be used at bottom of meter pan.
6. Main switch and panel box shall be located at a readily accessible location nearest the point of entrance of the service entrance conductors.
7. Risers must be of adequate strength and guyed properly if more than 24" above roof to safely withstand the strain imposed by the service drop.

#### **GROUNDING**

1. Ground wire shall be one continuous length, without splice or joint, from main switch to grounding electrodes. Suitable clamp must connect groundwire securely to two driven ground rods - minimum 6' apart in undisturbed earth. Grounding must be in accordance with the N.E.C. codes on new construction.
2. Grounding electrodes must be rods: 5/8" x 8' solid rod, either galvanized or copper clad.

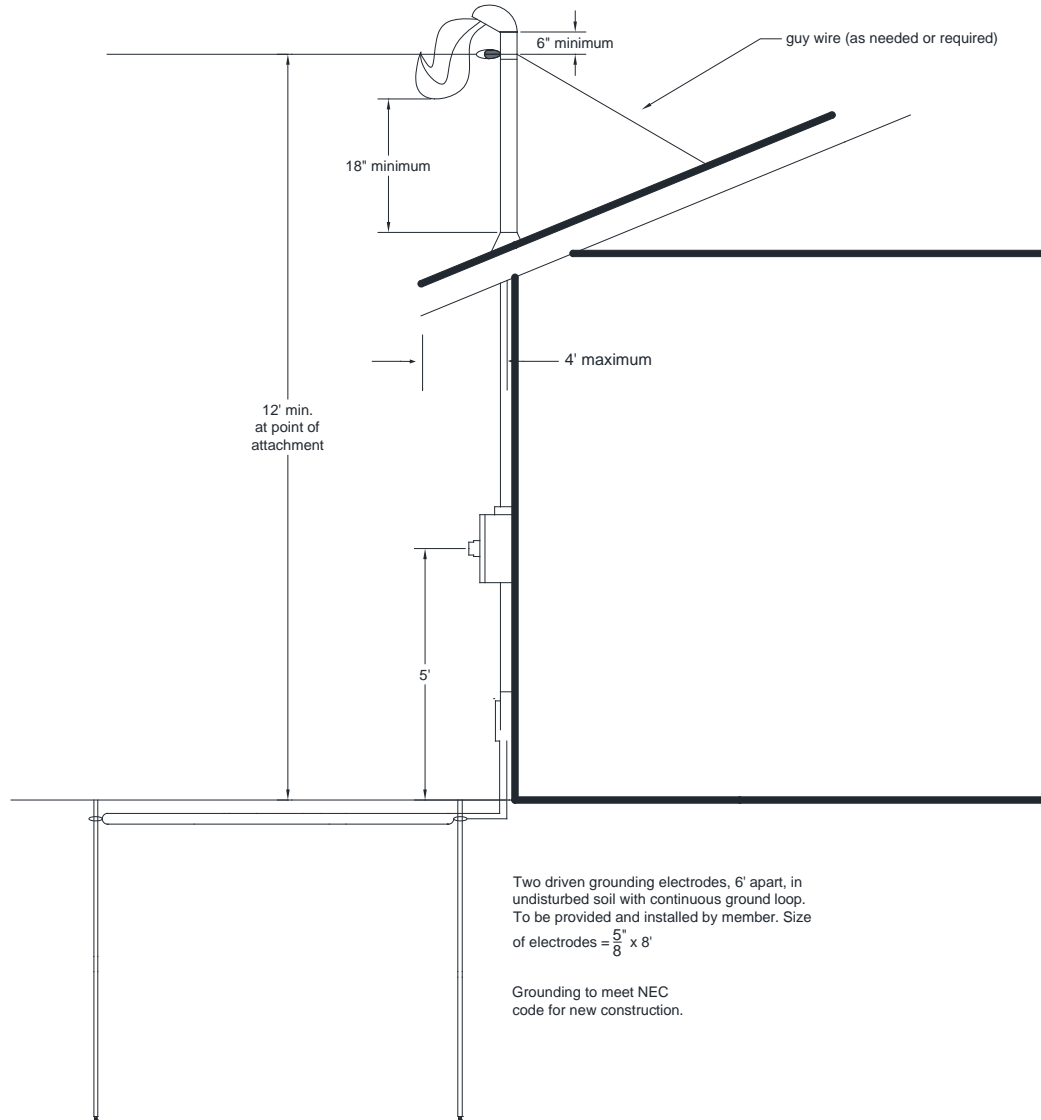
## Spec #12

### NOTES

1. All installations to be made according to the diagram on reverse side.
2. All materials to be approved by the Underwriters Laboratories.
3. All wiring to be in conformance with the National Electric Code and the National Electric Safety Code, current edition, and certified by a Cooperative approved inspection agency.
4. Always have a qualified electrician take care of your wiring needs.
5. Members not following these minimum specifications may be refused service connection.
6. Service connections and/or meter approval shall be done only by authorized Cooperative personnel.
7. Reduced neutral may be allowed.
8. All service entrances will be located by Cooperative personnel and above clearances may be greater. Any change to the service entrance location without authorization from the Cooperative may incur an additional expense to the member.
9. Service to be inspected by an approved inspection agency.

ITEM	MATERIAL	400 AMP SERVICE		
		100 AMP SERVICE	200 AMP SERVICE	400 AMP SERVICE
1	Copper Wire, Type THW in conduit	#4	#2/0	500 MCM
2	Aluminum Wire, Type THW in Conduit	#2	#4/0	750 MCM
3	Minimum Conduit Size	2"	2"	3"   3 1/2"
4	Minimum Conduit Size For UG Service Conductors	2"	2"	4"
5	Copper Ground Wire To Driven Grounding Electrodes	Minimum #6	Minimum #4	Minimum #1/0

Spec #12



## Spec #1

### **UNDERGROUND SERVICE TO METER ON HOUSE**

#### **SINGLE PHASE, 120/240 VOLTS, 3 WIRE SERVICE, 100 AMP MINIMUM**

##### **GENERAL**

1. Member to obtain meter pan from Co-op and install on house at his/her expense.
2. All service entrance equipment to be supplied and installed on house by member, including proper size conduit from meter base to below ground level. Conduit shall be galvanized steel or rigid non-metallic conduit (Schedule 80 PVC). It shall be of proper size as indicated below and securely fastened to side of house by suitable clamps.
3. Main switch and service entrance panel shall be located at a readily accessible location nearest the point of entrance of the service conductors in the house.
4. Member shall provide and install service entrance cable to reach from designated Cooperative owned pole transformer or pad mount transformer to meter base on house. **Member shall provide and install the bottom ten feet of conduit on Cooperative owned pole. Conduit shall be either galvanized steel or Schedule 80 PVC. The remaining conduit, clamps, couplings, etc., required on the pole will be provided by the member and installed by the Cooperative.**

##### **GROUNDING**

1. Ground wire shall be one continuous length, without splice or joint, from main switch to grounding electrodes. Suitable clamp must connect ground wire securely to two driven ground rods - minimum 6' apart in undisturbed earth. Grounding is to meet the N.E.C. codes for new construction.
2. Grounding electrodes must be rods: 5/8" x 8' solid rod, either galvanized or copper clad.
3. PVC conduit installed on the pole and/or house requires a 3 wire cable from the pole to the house. If the metal conduit is used on either end, it must be bonded to the meter box and/or the service panel.
4. Metal conduit used on the pole and house requires a 3 wire cable plus a ground wire bonded from the metal conduit to the meter box on the house or the service panel.
5. If metallic conduit is used from the meter box to the service panel, bonding bushings must be used at each location and a 3 wire cable may be use between the meter box and the service panel.
6. On all of the above, 2 ground rods must be installed at the house.

# Spec #1

## NOTES

1. All installations to be made according to the diagram on reverse side.
2. All materials to be approved by the Underwriters Laboratories.
3. All wiring to be in conformance with the National Electric Code and the National Electric Safety Code, current edition, and certified by a Cooperative approved inspection agency.
4. Always have a qualified electrician take care of your wiring needs.
5. Members not following these minimum specifications may be refused service connection.
6. Service connections and/or meter approval shall be done only by authorized Cooperative personnel.
7. Reduced neutral may be allowed.
8. All service entrances will be located by Cooperative personnel and above clearances may be greater. Any change to the service entrance location without authorization from the Cooperative may incur an additional expense to the member.

## TRENCH

The trench depths specified are minimum and are measured from final grade.

The trench shall be dug so that the bottom has a level grade and the bottom of the trench shall be relatively smooth, undisturbed earth or tamped earth or sand. Large rocks, stones, and gravel in excess of one inch shall be removed from the bottom and sides of trench. Where this cannot be done, a three inch layer of clean masonry sand shall be placed in the bottom of the trench, and screened dirt (using a one inch mesh screen) shall be used for backfill. TRENCH SHALL NOT BE FILLED WITH EXCESS CONSTRUCTION MATERIALS SUCH AS CONCRETE BLOCK, LUMBER, DRYWALL, ETC.

If proper depth cannot be maintained from final grade, galvanized conduit or Schedule 80 PVC must be used. All trenches parallel to the building foundation shall be no closer than four feet.

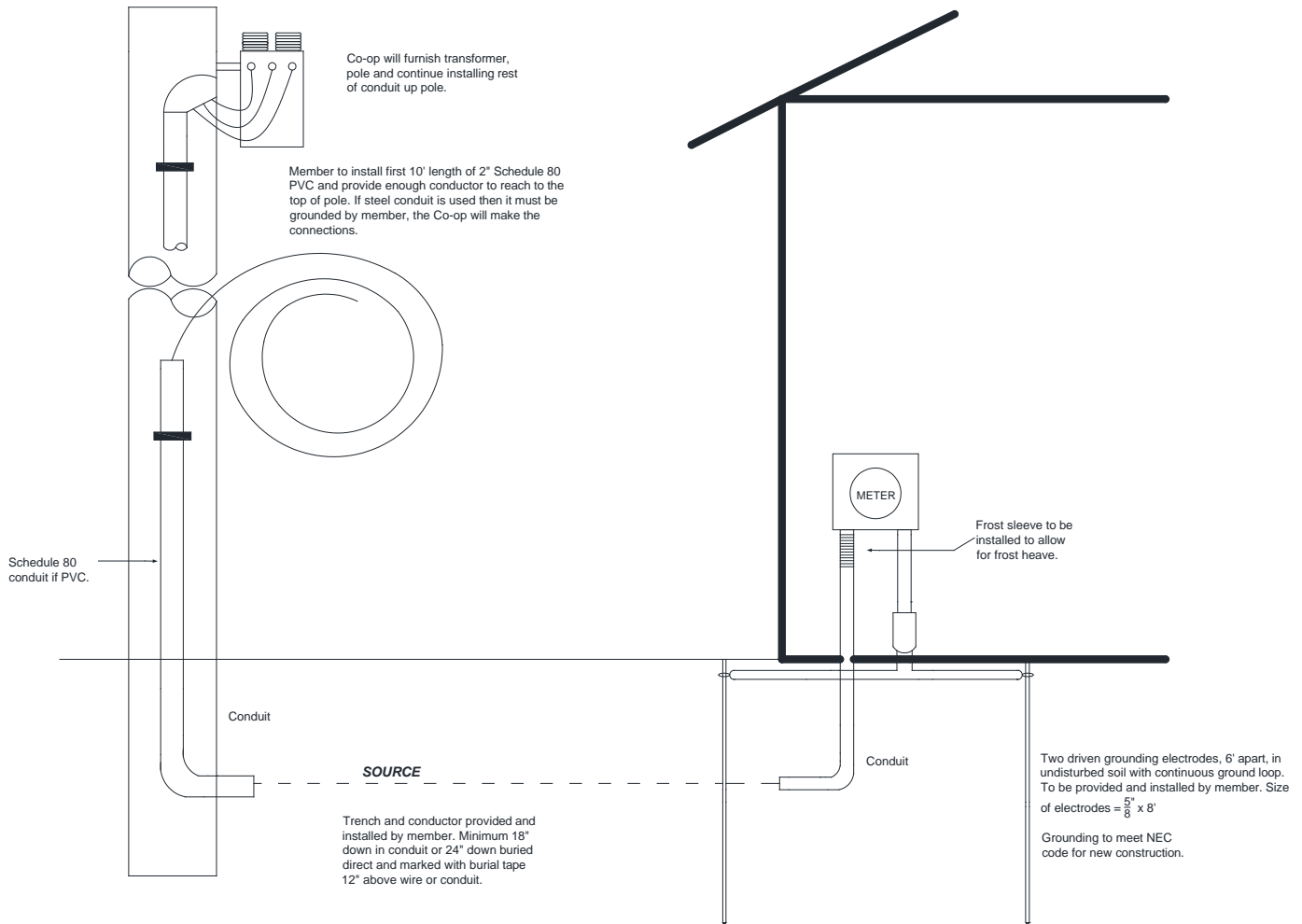
The trench shall be backfilled as described above as soon as possible after the placing of the cable. The top twelve inches of such backfill shall be well tamped while backfilling, and shall be banked over the top of the ditch to provide for settling of the backfill.

Duct shall be installed under driveways, patios, or other paved areas. Duct may be galvanized pipe, Type II Fiber duct or Schedule 80 PVC.

**\*Members not following these minimum specifications may be refused service connection.**

# Spec #1

ITEM	MATERIAL	100 AMP SERVICE	200 AMP SERVICE	400 AMP SERVICE
1	Copper Wire, Type THW in conduit	#4	#2/0	500 MCM
2	Aluminum Wire, Type THW in Conduit	#2	#4/0	750 MCM
3	Minimum Conduit Size	2"	2"	3"   3 1/2"
4	Minimum Conduit Size For UG Service Conductors	2"	2"	4"
5	Copper Ground Wire To Driven Grounding Electrodes	Minimum #6	Minimum #4	Minimum #1/0



## ***UNDERGROUND PRIMARY SERVICE***

The trench depths specified are minimum and are measured from final grade. The trench widths specified are minimum and shall be increased as necessary to obtain the required depth in loose soil.

The trenches shall follow straight lines between staked points as far as possible. The trench shall be dug so that the bottom has a level grade and the bottom of the trench shall be relatively smooth, undisturbed earth, tamped earth or sand. Large rocks, stones and gravel in excess of one inch shall be removed from the bottom and sides of the trench.

Excavation shall be coordinated with the Co-op so that trenches will be left open for the shortest practical time to avoid creating a hazard to the public, and to minimize the likelihood of trench collapse due to other construction activity, rain, accumulation of water in the trench, etc.

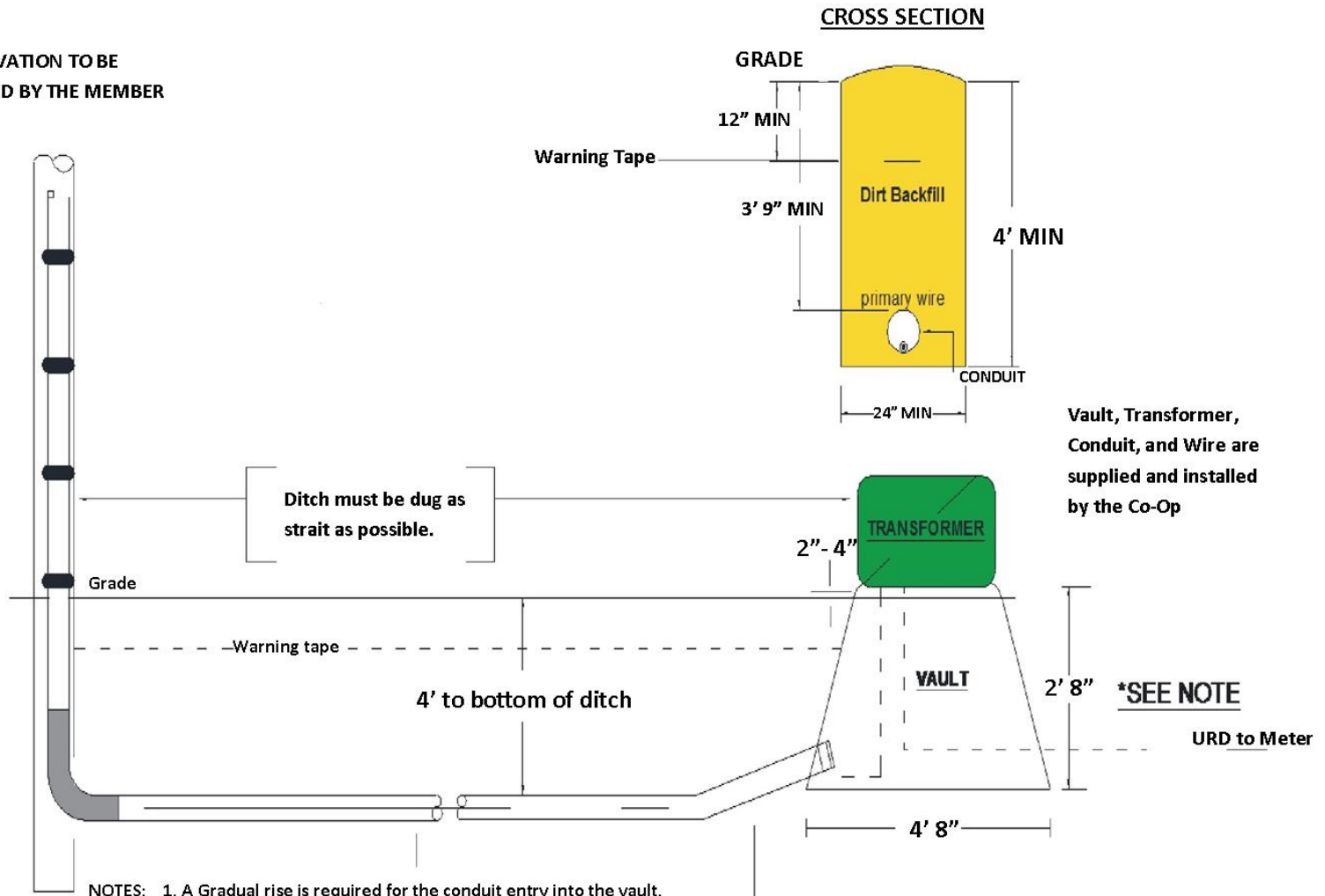
The trench shall be backfilled, as described above, as soon as possible after the placing of the cable. Warning tape must be placed in the ditch approximately twelve to eighteen inches below final grade. Telephone cable and other utilities may be placed in the ditch, if necessary, keeping a minimum spacing of twelve inches from the primary wire. The top twelve inches of such backfill shall be well tamped while backfilling, and shall be banked over the top of the ditch to provide for the settling of the backfill.

Ducts shall be installed under driveways, patios, or other paved areas. Duct may be either galvanized pipe, Type II Fiberduct or Schedule 80 PVC. The minimum size allowed shall be three inches.

1 foot of Crushed stone will be installed and leveled at the vault location. The crushed stone will be supplied and installed by the member.

Further primary underground cable guidelines are explained in the National Electrical Safety Code.

ALL EXCAVATION TO BE  
FURNISHED BY THE MEMBER



- NOTES:
1. A Gradual rise is required for the conduit entry into the vault.
  2. Crushed Gravel will be supplied by the member and installed 1' deep at the vault area
  3. Service will not be energized until the entire ditch is backfilled.

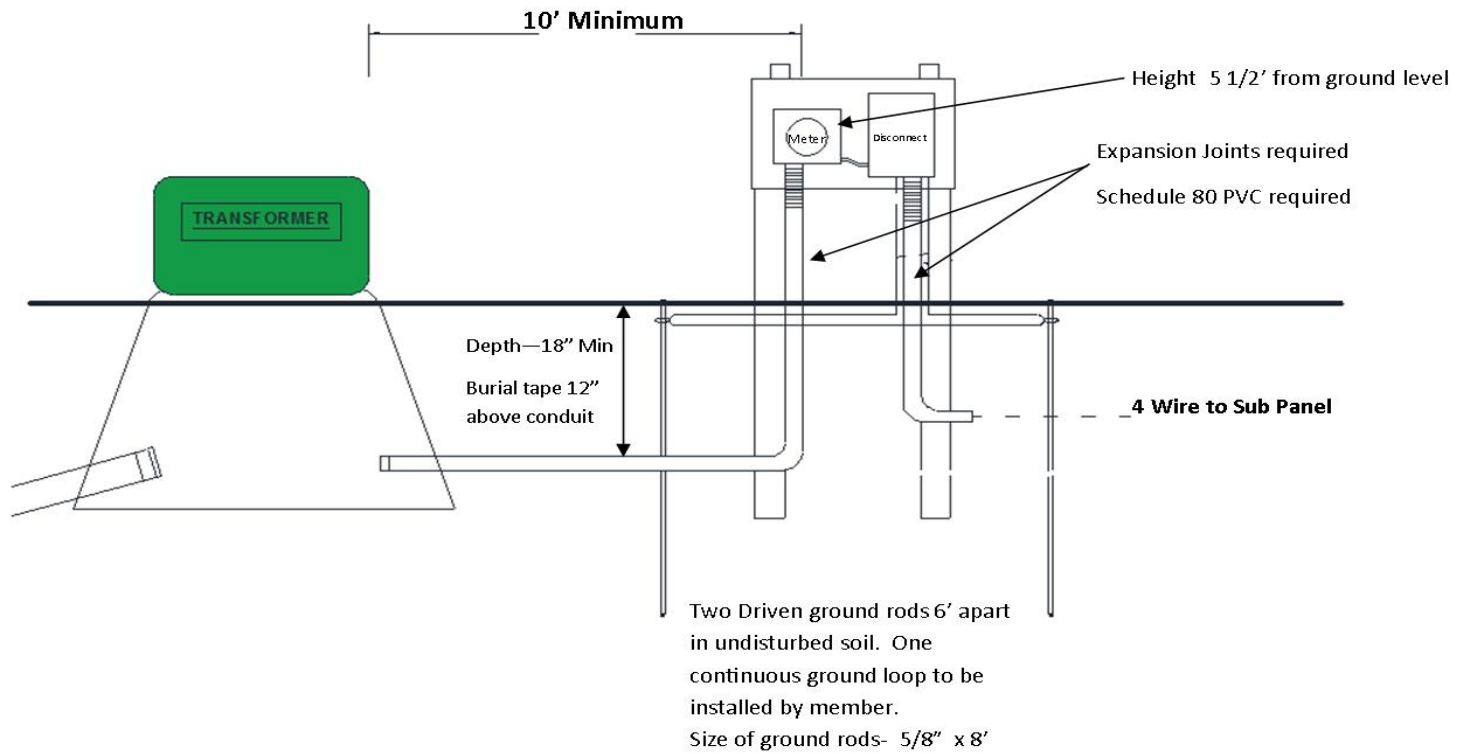


## Meter and Disconnect

**Pedestal to be built by member**

2 pressure treated 4" x 4" timbers or stub poles 10' in length. Set 5' deep and firmly tamped.

Treated or painted boards / planks or 3/4" exterior plywood nailed to posts





## Spec # 9

### **UNDERGROUND SERVICE TO METER AND SERVICE DISCONNECT ON PEDESTAL**

SINGLE PHASE, 120/240 VOLTS, 3 WIRE SERVICE, 100 AMP MINIMUM

#### **GENERAL**

1. Member to obtain meter pan from Co-op or independently purchase a meter cabinet disconnect combination and install on house at his/her expense.
2. All service entrance equipment to be supplied and installed on pedestal by member, including proper size conduit from meter base to below ground level. Conduit shall be galvanized steel or rigid non-metallic conduit (Schedule 80 PVC). It shall be of proper size as indicated below and securely fastened to pedestal with suitable clamps.
3. Member shall provide service entrance cable to reach from designated Cooperative owned pole transformer or pad mount transformer to meter base on pedestal. Member shall provide and install the bottom ten feet of conduit, on Cooperative owned pole. Conduit shall be either galvanized steel or Schedule 80 PVC. The remaining conduit, clamps, couplings, etc., required on the pole will be provided by the member and installed by the Cooperative.

#### **PEDESTAL SPECIFICATIONS**

As shown in diagram on reverse side.

#### **GROUNDING**

1. Ground wire shall be one continuous length, without splice or joint, from main switch to grounding electrodes. Suitable clamp must connect ground wire securely to two driven ground rods - minimum 6' apart in undisturbed earth. Grounding shall meet the N.E.C. codes for new construction.
2. Grounding electrodes must be rods: 5/8" x 8' solid rod, either galvanized or copper clad.
3. PVC conduit installed on the pole and/or pedestal requires a 3 wire cable from the pole to the pedestal. If the metal conduit is used on either end, it must be bonded to the meter box and/or the service panel.
4. Metal conduit used on the pole and pedestal requires a 3 wire cable plus a ground wire bonded from the metal conduit to the meter box on the pedestal or the service panel.
5. If metallic conduit is used from the meter box to the service panel, bonding bushings must be used at each location and a 3 wire cable may be use between the meter box and the service panel.
6. On all of the above, 2 ground rods must be installed at the pedestal.

## Spec # 9

### NOTES

1. All installations to be made according to the diagram on reverse side.
2. All materials to be approved by the Underwriters Laboratories.
3. All wiring to be in conformance with the National Electric Code and the National Electric Safety Code, current edition, and certified by a Cooperative approved inspection agency.
4. Always have a qualified electrician take care of your wiring needs.
5. Members not following these minimum specifications may be refused service connection.
6. Service connections and/or meter approval shall be done only by authorized Cooperative personnel.
7. Reduced neutral may be allowed.

### TRENCH

The trench depths specified are minimum and are measured from final grade.

The trench shall be dug so that the bottom has a level grade and the bottom of the trench shall be relatively smooth, undisturbed earth or tamped earth or sand. Large rocks, stones, and gravel in excess of one inch shall be removed from the bottom and sides of trench. Where this cannot be done, a three inch layer of clean masonry sand shall be placed in the bottom of the trench, and screened dirt (using a one inch mesh screen) shall be used for backfill. TRENCH SHALL NOT BE FILLED WITH EXCESS CONSTRUCTION MATERIALS SUCH AS CONCRETE BLOCK, LUMBER, DRYWALL, ETC.

If proper depth cannot be maintained from final grade, galvanized conduit or Schedule 80 PVC must be used. All trenches parallel to the building foundation shall be no closer than four feet.

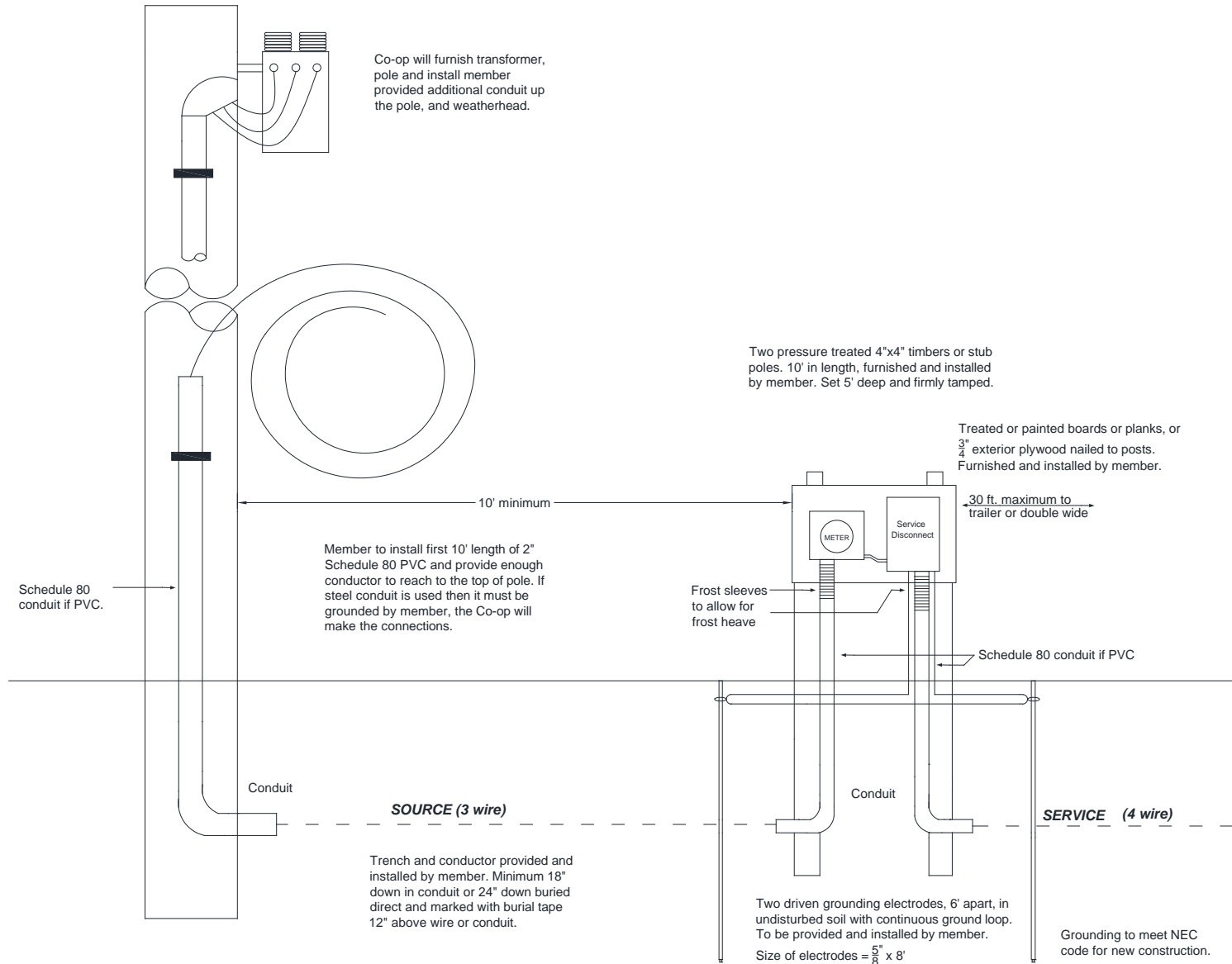
The trench shall be backfilled as described above as soon as possible after the placing of the cable. The top twelve inches of such backfill shall be well tamped while backfilling, and shall be banked over the top of the ditch to provide for settling of the backfill.

Duct shall be installed under driveways, patios, or other paved areas. Duct may be either galvanized pipe, Type II Fiberduct or Schedule 80 PVC.

\*Members not following these minimum specifications may be refused service connection.

ITEM	MATERIAL	AMP SERVICE		
		100 AMP SERVICE	200 AMP SERVICE	400 AMP SERVICE
1	Copper Wire, Type THW in conduit	#4	#2/0	500 MCM
2	Aluminum Wire, Type THW in Conduit	#2	#4/0	750 MCM
3	Minimum Conduit Size	2"	2"	3"   3 1/2"
4	Minimum Conduit Size For UG Service Conductors	2"	2"	4"
5	Copper Ground Wire To Driven Grounding Electrodes	Minimum #6	Minimum #4	Minimum #1/0

# Spec # 9



## Spec # 10

### UNDERGROUND SERVICE TO METER ON PEDESTAL

SINGLE PHASE, 120/240 VOLTS, 3 WIRE SERVICE, 100 AMP MINIMUM

#### GENERAL

1. Member to obtain meter pan from Co-op and install at his/her expense.
2. All service entrance equipment to be supplied and installed on pedestal by member, including proper size conduit from meter base to below ground level. Conduit shall be galvanized steel or rigid non-metallic conduit (Schedule 80 PVC). It shall be of proper size as indicated below and securely fastened to pedestal with suitable clamps.
3. Member shall provide service entrance cable to reach from designated Cooperative owned pole transformer or pad mount transformer to meter base on pedestal. Member shall provide and install the bottom ten feet of conduit on Cooperative owned pole. Conduit shall be either galvanized steel or Schedule 80 PVC. The remaining conduit, clamps, couplings, etc., required on the pole will be provided by member and installed by the Cooperative.

#### PEDESTAL SPECIFICATIONS

As shown in diagram on reverse side.

#### GROUNDING

1. Ground wire shall be one continuous length, without splice or joint, from main switch to grounding electrodes. Suitable clamp must connect ground wire securely to two driven ground rods - minimum 6' apart in undisturbed earth. Grounding is to meet the N.E.C. codes for new construction.
2. Grounding electrodes must be rods: 5/8" x 8' solid rod, either galvanized or copper clad.
3. PVC conduit installed on the pole and/or pedestal requires a 3 wire cable from the pole to the pedestal. If the metal conduit is used on either end, it must be bonded to the meter box and/or the service panel.
4. Metal conduit used on the pole and pedestal requires a 3 wire cable plus a ground wire bonded from the metal conduit to the meter box on the house or the service panel.
5. If metallic conduit is used from the meter box to the service panel, bonding bushings must be used at each location and a 3 wire cable may be use between the meter box and the service panel.
6. On all of the above, 2 ground rods must be installed at the pedestal.

# Spec # 10

## **NOTES**

1. All installations to be made according to the diagram on reverse side.
2. All materials to be approved by the Underwriters Laboratories.
3. All wiring to be in conformance with the National Electric Code and the National Electric Safety Code, current edition, and certified by a Cooperative approved inspection agency.
4. Always have a qualified electrician take care of your wiring needs.
5. Members not following these minimum specifications may be refused service connection.
6. Service connections and/or meter approval shall be done only by authorized Cooperative personnel.
7. Reduced neutral may be allowed.
8. All service entrances will be located by Cooperative personnel and above clearances may be greater. Any change to the service entrance location without authorization from the Cooperative may incur an additional expense to the member.

## **TRENCH**

The trench depths specified are minimum and are measured from final grade.

The trench shall be dug so that the bottom has a level grade and the bottom of the trench shall be relatively smooth, undisturbed earth or tamped earth or sand. Large rocks, stones, and gravel in excess of one inch shall be removed from the bottom and sides of trench. Where this cannot be done, a three inch layer of clean masonry sand shall be placed in the bottom of the trench, and screened dirt (using a one inch mesh screen) shall be used for backfill. TRENCH SHALL NOT BE FILLED WITH EXCESS CONSTRUCTION MATERIALS SUCH AS CONCRETE BLOCK, LUMBER, DRYWALL, ETC.

If proper depth cannot be maintained from final grade, galvanized conduit or Schedule 80 PVC must be used. All trenches parallel to the building foundation shall be no closer than four feet.

The trench shall be backfilled as described above as soon as possible after the placing of the cable. The top twelve inches of such backfill shall be well tamped while backfilling, and shall be banked over the top of the ditch to provide for settling of the backfill.

Duct shall be installed under driveways, patios, or other paved areas. Duct may be galvanized pipe, Type II Fiber duct or Schedule 80 PVC.

\*Members not following these minimum specifications may be refused service connection.

ITEM	MATERIAL	100 AMP SERVICE			200 AMP SERVICE		400 AMP SERVICE	
1	Copper Wire, Type THW in conduit	#4	#2/0	500 MCM				
2	Aluminum Wire, Type THW in Conduit	#2	#4/0	750 MCM				
3	Minimum Conduit Size	2"	2"	3"	3 1/2"			
4	Minimum Conduit Size For UG Service Conductors	2"	2"	4"				
5	Copper Ground Wire To Driven Grounding Electrodes	Minimum #6	Minimum #4	Minimum #1/0				

# Spec # 10

