City of Buffalo, Iowa

Buffalo Municipal Lighting and Power Handbook

DIAGRAMS

Adopted 2013

2013
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DEFINITIONS

The term "Company" is herein used to designate Buffalo Municipal Lighting and Power which furnishes electric service under these rules and regulations.

The term "Customer" is herein used to designate a person, partnership, association, firm, public or private corporation or governmental agency applying for using electric services supplied by the Municipality.
MINIMUM CLEARENces FOR SERVICES 480V AND BELOW

Figure 1 Notes

The following general clearances, under any and all conditions, include Buffalo Municipal Lighting and Power’s requirements and interpretations derived from the NESC Rule 234 and the NEC Section 230.24. Refer to these codes for specific conditions not shown in Figure 1. Clearances for utility-owned service drops and cables, beyond the perimeter of the customer’s building, will be controlled by the NESC requirements. The following alphabetical designations and respective dimensions apply to Figure 1 on the opposite page. Clearances shown are for multiplex (duplex, triplex and quadruplex) service drop conductors. Open wire service conductors require greater clearances.

A - The drip loop or service attachment fixture, whichever is the lowest point, shall have 12 feet minimum vertical clearance above final grade. Higher clearances may be required, reference "G" below.

B - The clearance between the service attachment and weatherhead shall be 12 inches minimum and 24 inches maximum.

C - Service conductors that are not protected by conduit or raceway shall have a minimum clearance of 3 feet from windows designed to be opened, doors, porches, fire escapes, signs, and similar construction. Conductors run above the top level of a window shall be permitted to be less than the 3 feet requirement.

D - The diagonal distance from the nearest edge of a balcony or deck handrail that is readily accessible to the service conductor shall be 10 feet minimum.

E - Refer to Figure 2.

F - Minimum vertical clearances between service drop and communication conductors shall be 2 feet at the conductor crossing and 12 inches at adjacent vertically spaced attachments to the building.

G - The minimum vertical clearance shall be:
   - 10 feet above sidewalk and ground;
   - 12 feet above residential driveways;
   - 18 feet above commercial areas, public driveways, alleys and streets, and other land traversed by vehicles.
   - 20 feet above Department of Transportation right of way and others as required by local jurisdiction.

H - For individual settings, the clearance between the center of the meter and the finished grade is to be 6 feet maximum and 4 feet minimum.

J - The dimension between the hinged side of a door and the nearest surface of the meter is to be door width plus 6 inches.

K - A clear working space, as shown by the box in the diagram, of not less than 36 inches in front of the meter and 30 inches wide shall be maintained at all times. *(NEC Section 110.26).*

L - The horizontal clearance from the nearest side of the meter socket enclosure to any structural protrusion shall be 3 inches minimum.

M - Horizontal distance of electric meter to gas regulator vent is 3-feet minimum.
GENERAL NOTES:
(1) The house number must be clearly posted and readable from the street.
(2) The service weatherhead is to be located no lower than the service attachment point to ensure a positive drip loop.
(3) Contact your Company representative for entrance and meter location. The Company will refuse connection to any service entrance not installed in an approved location.
(4) The customer shall install a suitable service attachment point to obtain proper ground clearance. See Figure 3.
(5) Service entrance conductors must be in conduit.
SERVICE CONDUCTOR CLEARANCES OVER ROOFS
Figure 2 Notes

Clearances shown are for multiplex (duplex, triplex, and quadruplex) service drop conductors. Open wire service conductors require greater clearances.

GENERAL REQUIREMENTS:

1. The customer shall install a suitable service attachment point. For proper ground clearance, see Figure 1. For adequate strength requirement, see Figures 3 and 4.
2. Eyebolts connected directly to the roof will not be approved.
3. The service weatherhead is to be located no lower than the service attachment point to insure a positive drip loop.
4. Service drop conductor shall not pass over or within 3.5 feet of furnace, chimney, antenna, fireplace, or sewer vents. See Figure (2A), NESC 234.C.1.b and NESC Table 234.1.

SPECIAL CONDITIONS REQUIRED FOR USING CLEARANCES SHOWN IN Figure 2(B):

5. Voltage between open conductors is 300 volts or less; and for multiplex conductors up to 750 volts.
6. The service entrance mast must not be more than 4 feet from the nearest edge of the roof. At a distance of 6 feet from the mast, the service conductors must have a vertical clearance of 3 feet over the roof. If the mast is more than 4 feet from the edge of roof, see Figure 2(C).
7. Roof must be classified as not readily accessible to pedestrians.

SPECIAL CONDITIONS REQUIRED FOR USING CLEARANCES SHOWN IN Figure 2(C):

8. Voltage between open conductors is 300 volts or less; and for multiplex conductors up to 750 volts.
9. Roof must be classified as not readily accessible to pedestrians.

SPECIAL CONDITIONS REQUIRED FOR USING CLEARANCES SHOWN IN Figure 2(D):

10. For multiplexed conductors up to 750 volts.
11. Special conditions required by Figure 2(B) and Figure 2(C) are not met. Service passes over, but is not attached to building.
SERVICE CONDUCTOR CLEARANCES OVER ROOFS

Figure 2

- Fig. 2(A)
- Fig. 2(B)
- Fig. 2(C)
- Fig. 2(D)

- THIS VERTICAL DIMENSION APPLIES TO ANY POINT ON THE ROOF SURFACE DIRECTLY UNDER THE CONDUCTORS.
1. The customer shall be responsible for all service attachment provisions.
2. Other types of service attachments may be required for larger services.
3. Service drop conductors shall not be attached to fire walls, parapet walls or chimneys.
## Typical Overhead Service Mast Requirements

**Figure 4**

### Maximum Service Drop Lengths

<table>
<thead>
<tr>
<th>Entrance Size</th>
<th>Riser Mast Conduit Size: Rigid Only</th>
<th>Service Attachment Height Above Support (Ft.)</th>
<th>Maximum Service Drop Length (Ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1.5</td>
<td>2</td>
</tr>
<tr>
<td>100A</td>
<td>2&quot;</td>
<td>125</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>2-1/2&quot; or 3&quot;</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>3-1/2&quot; or 4&quot;</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>200A</td>
<td>2&quot;</td>
<td>100</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>2-1/2&quot; or 3&quot;</td>
<td>150</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>3-1/2&quot; or 4&quot;</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>400A</td>
<td>2-1/2&quot; or 3&quot;</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>3-1/2&quot; or 4&quot;</td>
<td>125</td>
<td>100</td>
</tr>
</tbody>
</table>

### Application and Conditions for Above Table

1. The maximum service drop lengths shown are for triplex and quadruplex services attached to unguied riser masts.
   Marked span lengths indicated that 25 ft. must be subtracted from the indicated span length if service is quadruplex.

2. Conductor supports for spans longer than the maximum service drop lengths, for a given condition listed in the above table, must be guyed or braced to withstand the following maximum actual service drop tension:

   ![](https://via.placeholder.com/150)

<table>
<thead>
<tr>
<th>Entrance Size</th>
<th>Maximum Actual Tension</th>
</tr>
</thead>
<tbody>
<tr>
<td>100A</td>
<td>1500 Lbs.</td>
</tr>
<tr>
<td>200A</td>
<td>2000 Lbs.</td>
</tr>
<tr>
<td>400A</td>
<td>3500 Lbs.</td>
</tr>
</tbody>
</table>

   The customer should consider providing additional strength as a "Safety Factor" (*NEC* Section 230.28).

3. The service conductor type and span length will be selected by the Company representative as part of their inspection to determine the service entrance location. This information will be made available to the customer on request.

4. EMT (thin wall conduit) is not acceptable for any portion of the service mast.

5. Conduit couplings are not allowed above the roofline or less than 2 feet below the soffit line.
Swimming Pools

Conductors installed within 10' horizontally from the pool edge or diving platform must maintain basic vertical clearances as depicted in the following table.

This rule does not apply to a pool fully enclosed by a solid or screened permanent structure.

Beaches and Waterways Restricted to Swimming

Where rescue poles are used by lifeguards at supervised swimming beaches, the required basic vertical and horizontal clearances shall be as shown on the following table.

<table>
<thead>
<tr>
<th>CLEARANCES TO SWIMMING AREAS</th>
<th>UNGUARDED RIGID LIVE PARTS, 0-750V, SECONDARY CABLE</th>
<th>GROUNDED OR INSULATED GUYS, NEUTRAL COND.</th>
<th>OPEN SUPPLY CONDUCTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Clearance in any direction from the edge of pool, base of diving platform, or anchored raft</td>
<td>22'-6&quot;</td>
<td>23'-6&quot;</td>
<td>25'-6&quot;</td>
</tr>
<tr>
<td>(2) Clearance in any direction to the diving platform or tower</td>
<td>14'-0&quot;</td>
<td>15'-6&quot;</td>
<td>17'-6&quot;</td>
</tr>
<tr>
<td>(3) Vertical clearance over adjacent land</td>
<td>AS REQUIRED IN CLEARANCES ABOVE GROUND OR ROADWAYS (REF. NESC 232)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Underground direct buried cable</td>
<td>5' FROM POOL OR AUXILIARY EQUIPMENT (REF. NESC 301)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RADIUS POINT (1)
GROUNDING REQUIREMENTS

Figure 6 Notes

1. All grounding of electric installations shall meet the requirements of NEC Article 250, requirements of the Company as shown in these construction standards, and all other applicable codes.

2. The grounding electrode system shall consist of the provisions specified in NEC Section 250.50, Section 250.52, and Section 250.56. The Company does not allow the use of gas piping for grounding of electrical services. However, interior metallic gas piping, upstream of equipment service shutoff valves which may become energized, shall be electrically continuous and bonded to any grounding common electrode as defined by the NEC.

3. Ground rods, when used, shall be at least 8 feet long and 1/2 inch in diameter if copper, copper clad, or stainless steel, or 3/8 inch in diameter if galvanized or steel. The top of the rod shall be 2 to 6 inches below ground level. In certain instances additional grounding electrodes may be required, see NEC Section 250.56. NEC Section 250.60 prohibits using a lightning rod grounding electrode as one of the electrodes listed above.

4. Concrete-encased electrode, when used, shall be encased by at least 2 inches of concrete, located within and near the bottom of a concrete foundation or footing that is in direct contact with the earth, consisting of at least 20 feet of one or more bare or zinc galvanized or other electrically conductive coated steel reinforcing bars or rods of not less than 1/2 inch in diameter, or consisting of at least 20 feet of bare copper conductor not smaller than 4 AWG. Reinforcing bars shall be permitted to be bonded together by the usual steel tie wires or other effective means.

5. If a metal underground water pipe is in direct contact with the earth for 10 feet or more, it must be bonded to the grounding electrode system. In addition, a copper bonding conductor, or equivalent, must be connected around the water meter. See the following NEC Table 250.66, reprinted with permission from NFPA 70-2002, the National Electrical Code, Copyright 2005, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association on the referenced Subject which is represented only by the standard in its entirety.

6. The service grounding electrode conductor shall be connected to the neutral bus in the service disconnect or overcurrent device.

<table>
<thead>
<tr>
<th>TABLE 250.66</th>
<th>GROUNDING ELECTRODE CONDUCTOR FOR AC SYSTEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIZE OF LARGEST SERVICE-ENTRANCE CONDUCTOR OR EQUIVALENT AREA FOR PARALLEL CONDUCTORS</td>
<td>SIZE OF GROUNDING ELECTRODE CONDUCTOR</td>
</tr>
<tr>
<td>COOPER</td>
<td>ALUMINUM OR COPPER CLAD ALUMINUM</td>
</tr>
<tr>
<td>2 or smaller</td>
<td>1/0 or smaller</td>
</tr>
<tr>
<td>1 or 1/0</td>
<td>2/0 or 3/0</td>
</tr>
<tr>
<td>2/0 or 3/0</td>
<td>4/0 or 240 kcmil</td>
</tr>
<tr>
<td>Over 3/0 thru 350 kcmil</td>
<td>Over 250 kcmil thru 500 kcmil</td>
</tr>
<tr>
<td>Over 350 kcmil thru 600 kcmil</td>
<td>Over 500 kcmil thru 900 kcmil</td>
</tr>
<tr>
<td>Over 600 kcmil thru 1100 kcmil</td>
<td>Over 900 kcmil thru 1750 kcmil</td>
</tr>
<tr>
<td>Over 1100 kcmil</td>
<td>Over 1750 kcmil</td>
</tr>
</tbody>
</table>

Where multiple sets of service-entrance conductors are used as permitted in NEC Section 230.40, Exception No.2, the equivalent size of the largest service-entrance conductor shall be determined by the largest sum of the areas of the corresponding conductors of each set.

NOTE: Where the grounding electrode is a rod, pipe, or plate electrodes as permitted in NEC Sections 250.52(A)(5) or 250.52(A)(6), that portion of the grounding electrode conductor that is the sole connection to the grounding electrode shall not be required to be larger than No.6 copper wire or No.4 aluminum wire. Where the grounding electrode conductor is connected to a concrete encased electrode as permitted in 250.52(A)(3), that portion of the conductor that is the sole connection to the grounding electrode shall not be required to be larger than No.4 A WG copper wire.

* See installation restrictions in NEC Section 250-64.

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GROUNDING REQUIREMENTS

Figure 6

THE GROUNDING ELECTRODE CONDUCTOR TO THE SERVICE PANEL IS NOT TO BE PLACED INSIDE SERVICE ENTRANCE CONDUIT.

CLAMP SUITABLE FOR DIRECT BURIAL (GROUND ROD CLAMP SHALL BE VISIBLE FOR INSPECTION)

(FOR UNDERGROUND SERVICES THE GROUND ROD IS NOT ALLOWED ANY CLOSER THAN 4 FEET TO THE SERVICE RISER CONDUIT TO PREVENT DAMAGE WHEN THE UNDERGROUND SERVICE LATERAL CONDUCTOR IS INSTALLED.)

GROUNDING ELECTRODE CONDUCTOR BONDED TO METALLIC WATER PIPING SYSTEM

COPPER BONDING CONDUCTOR AROUND WATER METER ATTACHED WITH SUITABLE CLAMPS

CONCRETE-ENCASED ELECTRODE (UFER GROUND)

SEE NEC ARTICLE 250 FOR GROUNDING REQUIREMENTS. LOCAL JURISDICTION WILL DETERMINE ACCEPTABLE METHOD OF GROUNDING.
ALLOWABLE SERVICE CONDUCTOR SIZES

Figure 7

Allowable amperages of insulated conductors rated 0-2000 Volts, 60° to 90°C (140° to 194°F) not more than three conductors in raceway or cable or earth (directly buried), based on ambient temperature of 30°C (86°F).

<table>
<thead>
<tr>
<th>SIZE (kcmil)</th>
<th>TEMPERATURE RATING OF CONDUCTOR, SEE TABLE 310.13 OF THE NEC</th>
<th>SIZE (kcmil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWG</td>
<td>60°C (140°F)</td>
<td>75°C (167°F)</td>
</tr>
<tr>
<td>TW, UF</td>
<td>TYPES</td>
<td>TYPES</td>
</tr>
<tr>
<td></td>
<td>TSHW, THW</td>
<td>TSHW, THW</td>
</tr>
<tr>
<td></td>
<td>TWHN, XHHW</td>
<td>USE, ZW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COPPER</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>55</td>
<td>65</td>
</tr>
<tr>
<td>4</td>
<td>70</td>
<td>85</td>
</tr>
<tr>
<td>3</td>
<td>85</td>
<td>100</td>
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<tr>
<td>2</td>
<td>95</td>
<td>115</td>
</tr>
<tr>
<td>1</td>
<td>110</td>
<td>130</td>
</tr>
<tr>
<td>1/0</td>
<td>125</td>
<td>150</td>
</tr>
<tr>
<td>2/0</td>
<td>145</td>
<td>175</td>
</tr>
<tr>
<td>3/0</td>
<td>165</td>
<td>200</td>
</tr>
<tr>
<td>4/0</td>
<td>195</td>
<td>230</td>
</tr>
<tr>
<td>250</td>
<td>215</td>
<td>255</td>
</tr>
<tr>
<td>300</td>
<td>240</td>
<td>285</td>
</tr>
<tr>
<td>350</td>
<td>260</td>
<td>310</td>
</tr>
<tr>
<td>400</td>
<td>280</td>
<td>335</td>
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<tr>
<td>500</td>
<td>320</td>
<td>380</td>
</tr>
<tr>
<td>600</td>
<td>355</td>
<td>420</td>
</tr>
<tr>
<td>700</td>
<td>385</td>
<td>460</td>
</tr>
<tr>
<td>750</td>
<td>400</td>
<td>475</td>
</tr>
</tbody>
</table>

For residential applications, see NEC Section 310.15(B)(6).

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UNDERGROUND CONDUIT INSTALLATION

Figure 8

Refer to Section 9 for conduit installation requirements.
NOTES:

1. Contact the Company for approved conduit position prior to each installation. Normally the riser should be mounted on the side of the pole that is opposite the direction of traffic.

2. Installations requiring larger conduit capacity or different conduit orientation than shown must be approved in advance by your Company representative.

3. Conduits are to be installed so that the top end is 4"-6" above final grade.

4. PVC conduit is recommended. Sweeps are to be rigid steel or fiberglass. If rigid steel is used, it must be effectively grounded.

5. Contact the Company for recommended length of conductor to be coiled at base of pole so sufficient length is available to reach apparatus.

6. See Section 9 for conduit installation requirements.

7. Where conduit is to be extended to a location requiring a new or replacement pole, such extensions shall not be made until the pole work is completed by the Company.

8. Spare conduit to be capped with permanent cap.
1. The Company will provide and install all ♦ marked items. The customer shall be responsible for all other items.

2. An address sign that is visible from the street shall be posted on the meter setting. It shall be made of materials that provide a clearly legible address for the duration of the setting.

3. With the exception of pedestal type settings, the support shall be a square or round treated timber post, 4 inch x 4 inch minimum or equivalent.

4. Meters shall not be installed on trailers, portable houses, or any buildings not on a permanent foundation unless an exception is approved by the Public Works Director.

5. The weatherhead is to be located above the level of the service attachment point.

6. The customer shall provide, install and connect all grounding equipment.

7. All 120 volt circuits shall have ground fault circuit interrupters (GFCI) (NEC Section 590.6).

8. All customer provided equipment shall be weatherproof.

9. The service drop conductors shall not cross adjoining property.

CUSTOMERS TO CALL NUMBER BELOW 48 HOURS BEFORE DIGGING TO LOCATE UNDERGROUND FACILITIES
(800) 292-8989
OR
811 - IOWA ONE CALL
1. Disconnect required for 480 V temporary service. For other temporary service requirements, contact your Company representative.
TYPICAL UNDERGROUND TEMPORARY SERVICE
Figure 11 Notes

1. The Company will provide and install all marked items. The customer shall be responsible for all other items.

2. An address sign that is visible from the street shall be posted on the meter setting. It shall be made of materials that provide a clearly legible address for the duration of the setting.

3. The service lateral conductors shall be suitable for direct burial.

4. The customer shall provide and install the service lateral conductors in a manner that provides a sufficient length of conductor coiled at the transformer, secondary handhole or secondary pedestal, and end fittings (reference Detail "A") for connection to the power source by the Company.

5. With the exception of pedestal type settings, the support shall be a square or round treated timber post, 4 inch x 4 inch minimum or equivalent.

6. The customer shall provide, install and connect all grounding equipment.

7. All temporary circuits shall have ground fault circuit interrupters (GFCI) (NEC Section 590.6).

8. All customer provided equipment shall be weatherproof.

9. If the temporary meter setting is located adjacent to a padmount transformer, secondary pedestal or secondary handhole, it shall be between 5 to 7 feet away from the enclosure.

10. Depending on local regulations, Figure 14 may be used for temporary services.

CUSTOMERS TO CALL NUMBER BELOW 48 HOURS BEFORE DIGGING TO LOCATE UNDERGROUND FACILITIES
(800) 292-8989
OR
811 - IOWA ONE CALL
1. Disconnect required for 480 V temporary service. For other temporary service requirements, contact your Company representative.
1. The Company will provide and install all ♦ marked items. The customer shall be responsible for all other items.
1. The Company will provide and install all ♦ marked items. The customer shall be responsible for all other items.
1. The Company will provide and install all ♦ marked items. The customer shall be responsible for all other items.

2. An address, lot number or trailer number must be permanently posted on the outside of the cabinet, below the meter.

3. For free standing units, backfill around the pedestal shall be well tamped along the full 36 inch minimum length of the setting.

4. Any 120 volt outlet located on the pedestal shall have GFCI protection per NEC Section 210.8.

5. For pedestals attached to the masonry footings or basement walls, use three and one-half (3 1/2) inch length bolts (minimum) for secure mounting. Meter pedestal may be installed before house frame is constructed to eliminate the need for a temporary service.

6. Minimum specifications for meter pedestal are as follows:
   
   A. Free standing meter pedestals shall have a disconnect and overcurrent device on the load side of the meter.
   
   B. Meter pedestals shall have a removable cover for access to utility connection terminals.
   
   C. Meter pedestal shall have one provision for a seal, lock or sealable bolt to secure the lineside enclosure. Key locks will not be approved.
   
   D. All meter mounting equipment shall meet the requirements listed in Appendix A.
   
   E. All pedestal materials shall be fiberglass, steel or wood. Steel shall have a minimum of 14 gauge and plated or galvanized. The finish shall be tough, non-fading and have a long service life. Wood shall be treated 6 inch by 6 inch post.
   
   F. All meter pedestals shall be bonded to the neutral conductor. The neutral conductor shall be equipped with a lug for exclusive use of a copper ground wire.
   
   G. Customer installed wire should not impede the installation of Company wires.
TYPICAL UNDERGROUND RESIDENTIAL SERVICE METER PEDESTAL

Figure 14

FREE STANDING UNIT

- Meter
- Disconnect and overcurrent device (see note 6a)
- Customer owned service entrance cable

ATTACHED TO STRUCTURE

- Removable cover for access to utility connection terminals
- Provisions for seal, lock, or bolt to secure enclosures
- Foundation

- Metal edges at cable entrance shall be equipped to prevent damage to cables
- Stabilizing foot or integral stake
- Ground electrode conductor to the service panel (see Fig. 6 for grounding requirements)

- The ground rod is not allowed any closer than 4 feet to the service riser conduit to prevent damage when the underground service lateral conductor is installed.
1. The Company will provide and install all ♦ marked items. The customer shall be responsible for all other items.

2. Current transformers and potential transformers are furnished by the Company and installed by the customer.

3. Submit current transformer and potential transformer mounting details to the Company for approval.

4. Mount current transformers and potential transformers so that the polarity marks of each set are arranged in identical position.

5. Bond all metal racks to the neutral wire.

6. Working space from electrical equipment shall be in accordance with NEC Section 110.26.

7. Service entrance conduit shall be mounted on an exterior wall accessible to Company personnel.
1. The Company will provide and install all ♦ marked items. The customer shall be responsible for all other items.
1. The Company will provide and install all ● marked items. The customer shall be responsible for all other items.

2. Current transformers and potential transformers are furnished by the Company and installed by the customer.

3. The instrument transformer enclosure(s) shall be mounted outdoors. Consult your Company representative for an approved location.

4. Mount current transformers and potential transformers so that the polarity marks are orientated on the line side.

5. The instrument transformer enclosure(s) shall be bonded to the grounding electrode conductor, or neutral.

6. Working space from electrical equipment shall be in accordance with NEC Section 110.26.
1. The Company will provide and install all ♦ marked items. The customer shall be responsible for all other items.
1. All service entrance equipment shall be UL listed.

2. All meter sockets shall meet Company specifications, see Appendix A.

3. Working space in front of service entrance equipment and meter sockets shall be in accordance with NEC Section 110.26.

4. Apartments, rooms, or suites shall have identical markings on the entry door, meter socket, and fuse or breaker panel. A permanent/weatherproof label shall be used.

5. Group metering installed in network areas & shall be of type shown in Figures 24 and 26.

6. Metered and un-metered conductors shall not be installed in the same conduit or trough.

7. Spring, clip type add-on 5th terminals are not allowed.

8. Commercial (does not include residential apartments) installations require a manual clamping jaw lever bypass.

9. Open meter sockets shall have a plastic protective cover and shall be sealed.
1. All service entrance equipment shall be UL listed.

2. All meter sockets shall meet Company specifications, see Appendix A.

3. Working space in front of service entrance equipment and meter sockets shall be in accordance with NEC Section 110.26.

4. Apartments, rooms, or suites shall have identical markings on the entry door, meter socket, and fuse or breaker panel. A permanent/weatherproof label shall be used.

5. Spring, clip type add-on 5th terminals are not allowed.

6. Commercial (does not include residential apartments) installations require a manual clamping jaw lever bypass.

7. Metered and un-metered conductors shall not be installed in the same conduit or trough.

8. Open meter sockets shall have a plastic protective cover and shall be sealed.

9. Group metering banks shall meet 3’ minimum and 6’ maximum height requirements.
REQUIREMENTS FOR METER MOUNTING EQUIPMENT
Appendix A

1. ENCLOSURE MATERIALS
   • Meter sockets shall meet Company specifications and shall be UL Listed.
   • Shall be steel (plated or made of galvanized steel) or aluminum.
   • The finish shall be tough, non-fading, and have a long service life.

2. INSULATING MATERIALS
   • Bus Support - Shall be high strength and track-resistant.
   • Sheet Insulation - High dielectric strength.
   • Insulating materials meet UL requirements.

3. MOUNTING BASES
   • Shall be high impact strength, track-resistant.

4. SAFETY SHIELD BARRIERS
   • Shall be track-resistant.

5. CONNECTORS
   • Shall have high strength tops.
   • Single hex screw and floating pressure pad; shall be tin-plated, suitable for copper or aluminum wire; shall have a built-in, anti-turn provision.
   • Shall meet UL requirements for electrical connectors.
   • Only one conductor per lay in connector is allowed.

6. JAWS
   • Shall be tin-plated electrolytic copper. Jaws rated at 100 A and above shall be spring reinforced.
   • Spring, clip type add-on 5th terminals are not allowed.

7. COVERS
   • Shall be one piece.
   • Shall be lockable using a hasp-type lock.
   • Shall be ringless type.

8. INSTALLATION BASE
   • Door shall be removable for installation ease.
   • Terminals shall accept copper or aluminum wire for installation flexibility.
   • Enclosure shall have a broad range of concentric knock-outs to accommodate varied wiring needs.
   • Residential meter sockets rated at 200 amps or less require a horn bypass. Residential meter sockets rated greater than 200 amps require a manual clamping jaw bypass.
   • Commercial meter sockets rated at 200 amps or less require a horn bypass. Commercial meter sockets rated greater than 200 amps require a manual clamping jaw bypass.

NOTE: METER MOUNTING EQUIPMENT IS NOT ACCEPTABLE IF:
• Designed for flush-mounting only.
• Equipped with automatic bypass or sliding bar bypass.
• Equipped with ring-type mounting cover.
• Used for UG application when specifically manufactured only for overhead application.
• Not UL approved.