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## DEFINITIONS

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<th>Description</th>
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<tbody>
<tr>
<td>ANSI</td>
<td>American National Standards Institute</td>
</tr>
<tr>
<td>C.T.</td>
<td>Current Transformer</td>
</tr>
<tr>
<td>Guide</td>
<td>Farmington Electric Utility System’s Meter &amp; Service Guide</td>
</tr>
<tr>
<td>HP</td>
<td>Horsepower</td>
</tr>
<tr>
<td>HUD</td>
<td>Housing Urban Development</td>
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<tr>
<td>MHC</td>
<td>Manufactured Housing Code</td>
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<tr>
<td>Meter Spot</td>
<td>Meter Location</td>
</tr>
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<td>Mobile-Home</td>
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<tr>
<td>NEC</td>
<td>National Electrical Code</td>
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<td>National Electrical Safety Code</td>
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<td>Rules &amp; Regs</td>
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<td>Jumpering meter socket</td>
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<td>State Code</td>
<td>New Mexico Electrical Code</td>
</tr>
<tr>
<td>Temporary Service</td>
<td>Service for construction or other short-term purposes</td>
</tr>
<tr>
<td>U. L.</td>
<td>Underwriters Laboratory</td>
</tr>
<tr>
<td>Utility</td>
<td>Farmington Electric Utility System</td>
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METER AND SERVICE GUIDE

FARMINGTON ELECTRIC UTILITY SYSTEM

PURPOSE AND SCOPE:

The Farmington Electric Utility System (hereinafter called Utility) will make every reasonable effort to provide safe, reliable, adequate electric service of a character to best meet your requirements. To best accomplish this objective, the Utility should be contacted well in advance of your required service connection date. Available service voltage, phase, etc. may vary at different locations.

The information contained in this Meter and Service Guide (hereinafter called Guide) refers primarily to service requirements for lighting and power installations at the usual secondary distribution voltages. Service requirements for installation requiring higher distribution voltages are subject to negotiations between customer and the Utility.

Strict adherence to this Guide will insure prompt service and connections; and allows the Utility to standardize its equipment, thus affording customers with the best possible service at the lowest possible cost.

This Guide (dated 07/12/12) replaces all other standards previously issued and is enforced in all areas served by the Utility. In the event a conflict should arise between the National Electrical Code (hereinafter called NEC), New Mexico Electrical Code (hereinafter called State Code) or the National Electrical Safety Code (hereinafter called NESC) and this Guide, the more stringent code will apply.
MISCELLANEOUS:

Services furnished under this GUIDE are subject to the Utility’s RULES AND REGULATIONS COVERING ELECTRIC SERVICE herein called RULES & REGS. A copy of which is made available to you upon request.

Reference to billings, rates and contractual services is covered in the RULES & REGS.

Please observe the following telephone numbers:

- Electrical Engineering: ............................................................. 599-8320
- New Service: ........................................................ 599-8310 & 599-8312
- Inspection: ................................................................. 599-1304
- Line Department: .......................................................... 599-8330
- New Mexico One-Call (Blue Stake): ................................. 800-321-2537

Emergency or trouble calls: .................................................. 599-8444
I. SERVICE LOCATION:

1. The Utility reserves the right to locate the service-conductors and meter for all installations.

2. Meter locations (spots) are furnished in writing upon request.

3. Meters not located by a representative of the Utility’s Electric Engineering Division are the responsibility of the electrical contractor to relocate such meters for compliance.

4. The meter socket shall be located so that it is entirely on the outside of the building or structure. In the event that building construction, alteration, or repair, (i.e. construction of a porch or other structure) in the opinion of the Utility, makes a meter inaccessible, the customer shall at customer’s expense, relocate the meter socket and/or service entrance conductor to an outside location which is accessible to Utility personnel.

5. Occupied structures are not allowed with the following conditions:

   a) Under an existing power or service line.

   b) Within fifteen (15) feet, measured horizontally from the outside phase conductor, of a primary distribution 13,800 volts or a transmission 115,000 volts power line.
II. INSPECTIONS AND SERVICE CONNECTIONS:

1. A minimum of 24-hours, advance notice shall be given for all inspections.

2. Inspections are completed as promptly as possible, not to exceed 48-hours, excluding weekends.

3. After receipt of inspection by New Service, a minimum of 24-hours advance notice is required for all service connections, excluding weekends and emergencies.

4. When Utility personnel is required to make multiple trips to a location because the service is not to code the following charges will apply:
   - $140.00* (2 hour minimum) for each re-inspection trip;
   - $220.00* (2 hour minimum) for each subsequent trip by a Line Crew.
   *Based on 2010 wages; to be adjusted in future with annual wage increases.

5. Only authorized Utility personnel shall be permitted to connect, disconnect, and reconnect all services.

6. Service disconnect will be checked for applicable code requirements, accessibility and safety before reconnecting. Any deficiencies shall be corrected by customer.

7. When an electrical service is disconnected by the utility the service will be required to be brought up to present electrical codes.
   \textbf{Exception}: For a service that is disconnected for repairs with no modifications the service will be allowed to be reconnected.

8. \textit{Utility requires load-demand, connected load, power riser diagram and service equipment size information on all commercial jobs; and residential services above 100 amps. This information must be provided in writing to Electric Engineering. A work order will not be issued until this information is provided.}

   \textit{Please use the forms in this book as a guideline for load information.}
III. VOLTAGES/NUMBER OF SERVICES:

1. Single-phase, 3-wire 120/240 volts - maximum of 100 kVA demand as determined by the Utility.

2. Three-phase, 4-wire 120/240 volts - maximum of 225 kVA demand as determined by the Utility.

3. Three-phase, 4-wire at 120/208 volts.

4. By special arrangement only, 10 HP motor minimum with 25 HP motor maximum, 480 volts single-phase, 3-wire.

5. By special arrangement only, 35 kW minimum demand (as determined by Utility) are required for voltages listed below.
   
   a) Three-phase, 4-wire, 277/480.
   
   b) Primary voltages, 7970/13800, 4-wire, Three-Phase.

6. The customer must suppress harmonic distortion to less than specified in Rule 26 (see Current Distortion table on page 9).

7. Only two (2) service-drops or service laterals shall be permitted for each lot. Meters located on the same structure and of the same voltage type shall be grouped at a common location and fed only from an approved, bussed-enclosure or ganged-meter socket equipped with provision for attaching a meter seal.

EXCEPTIONS: By special permission only as determined by the Utility.

a) Additional service is allowed for each property, if structures are one-hundred-feet (100') or more apart, with the service attached or adjacent to the structure.

b) Large buildings: A single building or other structure sufficiently large enough to make two (2) or more services necessary.

c) Multiple-occupancy buildings: Two (2) or more multiple-occupancy buildings on one (1) lot may have a service for each building.
III. VOLTAGES/NUMBER OF SERVICES: (cont’d)

d) Two (2) services of different voltages may be allowed on any existing building.

8. Where 120/240 volts, single-phase and 240 volts, 3-phase are both needed for a new commercial or industrial building, only one (1) 120/240 volts, 3-phase, 4-wire, Delta Service will be provided.
IV. MOTOR LOAD AND PHASE CONVERTERS:

1. Motors over 40 HP 3-phase (code letter G) may be required to have either part-winding-start capabilities or reduced voltage-starting equipment to limit starting current to no more than 60% of the across the line starting current.

2. Unless 3-phase secondary voltage exists, it will not be provided for motors smaller than 7-1/2 HP or total motor load of 7-1/2 HP.

3. 7-1/2 HP maximum size motor on single-phase service. Contact the Utility for larger installations.

4. Phase converters may be permitted (where 3-phase distribution facilities are not available or not feasible for customer to afford) by special arrangement with the Utility.

5. The Utility reserves the right to require the customer to limit motor-starting flicker within the Utility’s acceptable limits.

6. The harmonic distortion must be equal to or less than those specified in Rule #26 of FEUS Rules & Regulations.

7. Customer receiving 3-phase power shall be responsible for protecting their equipment from losses of one or more phases. It is the customer’s responsibility to provide surge protection beyond the meter for their electric equipment.
### CURRENT DISTORTION

<table>
<thead>
<tr>
<th>(I_{Sc}/I_L) AT Pcc</th>
<th>MAXIMUM HARMONIC IN PERCENT OF I_L</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>INDIVIDUAL HARMONIC ORDER</td>
</tr>
<tr>
<td>&lt;20</td>
<td>&lt;11 11-15 19-21 23-33 &gt;33 TDD</td>
</tr>
<tr>
<td>20-50</td>
<td>7.0% 4.5% 3.5% 2.5% 1.0% 0.5% 5.0%</td>
</tr>
<tr>
<td>50-100</td>
<td>10.0% 4.0% 6.0% 4.0% 1.5% 0.7% 12.0%</td>
</tr>
<tr>
<td>100-1000</td>
<td>12.0% 5.5% 5.0% 5.0% 2.0% 1.0% 15.0%</td>
</tr>
<tr>
<td>&gt;1000</td>
<td>15.0% 7.0% 6.0% 2.5% 1.4% 20.0%</td>
</tr>
</tbody>
</table>

*(TDD)—TOTAL DEMAND DISTORTION IS HARMONIC CURRENT IN % OF MAXIMUM DEMAND LOAD CURRENT FOR 15-30 MINUTE DEMAND.

I_L IS THE AVERAGE CURRENT OF THE MAXIMUM DEMAND FOR THE PRECEDING 12 MONTHS.

Pcc IS THE POINT OF COMMON COUPLING

I_{Sc} IS THE MAXIMUM SHORT CIRCUIT CURRENT AT Pcc.

LARGER CUSTOMERS (I_L) HAVE MORE STRINGENT LIMITS BECAUSE THEY REPRESENT A LARGER PORTION OF THE SYSTEM LOAD

THE TABLE IS FOR 6-PULSE RECTIFIERS. FOR 12-PULSE, 18-PULSE, ETC, INCREASE CHARACTERISTIC HARMONICS BY:

THE VALUE OF THE SQUARE ROOT OF q/6, WHERE q=12, 18, ETC. THUS FOR 12-PULSE, INCREASE BY 1.414

NOTE:
REPLICATION OF TABLE 10.3 IF IEEE 519 SHOWING MAXIMUM ALLOWABLE CURRENT DISTORTION VALUES.
V. SERVICE EQUIPMENT DISCONNECTING-MEANS:

1. All services 600 amps and under, utilizing a single meter or C.T. cabinet with disconnecting-means, shall be at a readily accessible point outside the building or structure and associated with the meter socket. Services above 600 amps, the disconnecting-means may be located inside the structure per NEC.

2. The service disconnecting-means shall consist of not more than six (6) switches with fuses or six (6) circuit breakers grouped at one (1) location on a building, including multiple occupancy buildings. For special use: fire pumps, etc, Contact the Utility.

3. If there are more than six (6) switches or six (6) circuit breakers grouped at one (1) location on a building, a main-disconnect-switch with fuses or a main-circuit breaker shall be installed, and shall be service equipment rated.

4. All single family dwellings shall have the main-disconnect installed at the meter location.

5. All service equipment disconnects shall be durably and legibly identified with the word “SERVICE DISCONNECT” on the cover.

6. All service equipment disconnects supplied by more than 250 volts between ungrounded (live) phase conductors, but less than 600 volts, shall be durably and legibly marked to identify the voltage, using a warning sign or sticker not less than one-half-inch by two inches (1/2” x 2”).
VI. SERVICE RACEWAYS:

1. Minimum size allowed:

   a) Service drop not attached: See Drawings.

   b) Service drop attached: Two-inch (2") galvanized-rigid steel mast.

2. Fittings utilizing removable covers such as LB, LR, LL conduit bodies shall be permitted in service raceways, not to exceed two (2) entries.

   EXCEPTIONS:

   a) A “T” fitting shall be permitted only for TV amplifier services as illustrated in Drawing OS-6.
VII. METER SOCKETS AND ENCLOSURES:

1. The following enclosures are “or equal” items:

<table>
<thead>
<tr>
<th>Residential:</th>
<th>Commercial:</th>
</tr>
</thead>
<tbody>
<tr>
<td>120/240V 1ø</td>
<td>120/240V 1ø</td>
</tr>
<tr>
<td>100 amps thru 150 amps</td>
<td>100 amps thru 200 amps</td>
</tr>
<tr>
<td>Any UL listed socket</td>
<td>Superior 448A or 448AX</td>
</tr>
<tr>
<td>120/240V 1ø</td>
<td>120/240V 1ø</td>
</tr>
<tr>
<td>151 amps thru 200 amps</td>
<td>201 amps thru 400 amps</td>
</tr>
<tr>
<td>Any UL listed 200 amp socket</td>
<td>Landis &amp; GYR 9810-8501-K4U</td>
</tr>
<tr>
<td>120/240V 1ø</td>
<td>120/240V 1ø</td>
</tr>
<tr>
<td>201 amps thru 400 amps</td>
<td>over 400 amps</td>
</tr>
<tr>
<td>Landis &amp; GYR Type HQ-4GU, OH/UG Services</td>
<td>Contact the Utility.</td>
</tr>
<tr>
<td>120/240V 1ø</td>
<td>120/240V 1ø</td>
</tr>
<tr>
<td>over 400 amps</td>
<td>100 amps thru 200 amps</td>
</tr>
<tr>
<td>Contact the Utility.</td>
<td>Milbank U9551RXL</td>
</tr>
<tr>
<td>480V 1ø</td>
<td>120/240V 3ø4w, Delta</td>
</tr>
<tr>
<td>60 amps thru 200 amps</td>
<td>100 amps thru 200 amps</td>
</tr>
<tr>
<td>Milbank U9701RXL</td>
<td>Milbank U9701RXL</td>
</tr>
<tr>
<td>120/208V 3ø4w, Wye</td>
<td>120/208V 3ø4w, Wye</td>
</tr>
<tr>
<td>100 amps thru 200 amps</td>
<td>100 amps thru 200 amps</td>
</tr>
<tr>
<td>Milbank U9701RXL</td>
<td>Milbank U9701RXL</td>
</tr>
<tr>
<td>277/480V 3ø4w, Wye</td>
<td>3ø Voltages</td>
</tr>
<tr>
<td>100 amps thru 200 amps</td>
<td>201 amps thru 600 amps</td>
</tr>
<tr>
<td>Milbank U9701RXL</td>
<td>above 600 amps</td>
</tr>
<tr>
<td>3ø Voltages</td>
<td>3ø Voltages</td>
</tr>
<tr>
<td>Contact the Utility;</td>
<td>See Drawings:</td>
</tr>
</tbody>
</table>

EXCEPTIONS: For Single Phase single utilization equipment, use only U.L. listed socket.

2. For mounting height of meter and C.T. enclosures: see Drawings.

3. Ganged meters shall not be stacked more than three (3) high.

4. For all instrument-metering installations, call the Utility’s New Service Department for prior arrangements so the service-conductors can be threaded through the C.T. without cut or splice. The Utility shall furnish and install all color-coded #12 AWG conductors necessary for instrument metering including test blocks.

   a) C.T. enclosure shall not be used as a raceway or junction box.

   b) For transformer mounted metering, contact the Utility. See Drawing US-14A.
VII. METER SOCKETS AND ENCLOSURES: (cont’d)

5. Instrument-metering installations shall be provided with a substantial mounting-means.

6. All metal-service-raceways and service-equipment-enclosures shall be grounded and bonded in accordance with ARTICLE 250 of the NEC. For metering details, see Drawings.

7. Shunting (jumpering) meter sockets and cutting meter seals is strictly prohibited.

8. The electrical contractor shall permanently identify all multiple meters and service equipment disconnects, at a common location and indicate their purpose, with laminate plates attached with screws.

9. At any one (1) location, service connection to multiple self-contained meters shall be from an approved bussed-gutter or lug-landing enclosure only. This will eliminate the use of split-bolt connections in gutters and cabinets. Means for attaching a meter seal shall be provided.

10. No feeder or branch circuit conductors will be allowed in the meter enclosure.
VIII. SERVICE-ENTRANCE CONDUCTORS:

1. A minimum size #2 AWG aluminum, copper-clad aluminum, or #4 AWG copper conductors shall be permitted for 100 amps, single-phase, 3-wire services for DWELLING UNITS ONLY, in accordance with NEC. Service-conductors for other types of occupancy or use shall not be smaller than #1 AWG aluminum, or #3 AWG copper.

EXCEPTIONS: Service-conductors for cathodic protection; TV amplifier; Sprinkler controller; telephone dryer; traffic-control signals, subject to aluminum restrictions of the State Code; and signs having a rating of 30 amps or less, provided the service-conductor size for such signs shall not be smaller than #10 AWG copper, installed in conduit not less than one-half-inch (1/2”) trade size.

2. All service-conductors shall have insulation suitable for the applied voltage; but, in any case, not less than 600 volts.

3. Color codes: Phase Conductors.

<table>
<thead>
<tr>
<th>Phase</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>120/208V 3 ø</td>
<td>Black</td>
<td>Red</td>
<td>Blue</td>
</tr>
<tr>
<td>277/480V 3 ø</td>
<td>Brown</td>
<td>Orange</td>
<td>Yellow</td>
</tr>
</tbody>
</table>

b) High Voltage Phase Conductors - (Wild-leg, orange-leg, etc.) To ground for 120/240 volts, 3-phase, 4-wire, Delta, shall be ORANGE in color and installed on the right side of line and load terminals of the meter base. Termination beyond the meter shall be in accordance with NEC and color-coded ORANGE as specified in the NEC.

c) Neutral - CONTINUOUS WHITE or NATURAL-GRAY INSULATED, or BARE COPPER; otherwise, re-identification shall be by a distinctive white marking at each termination point. At each service head a minimum of three-inches (3”) of the conductor, beginning at the service head, shall be re-identified using white tape or natural-grey.

4. Conductors outside the service head shall be free of splices and of sufficient length to easily reach the service-drop eyebolt or insulator spools, and provide a drip-loop that is lower than the service head. See Drawings.
IX. SERVICES GENERAL - “OVERHEAD”:

1. An underground wiring method shall be required whenever the service size, calculated in accordance with the NEC, exceeds 150 amps.

   **EXCEPTION:** A 200 amps overhead service drop is not to exceed eighty-feet (80’) in length.

2. If an existing 2-wire, 120 volts, single-phase service is disconnected for internal reasons such as remodeling, internal upgrading; damage by fire, only a 3-wire 120/240 volts single-phase service shall be reconnected.

3. Maximum service-drop distance shall be one-hundred-feet (100’). Where service-drop distance will be more than one-hundred-feet (100’), a line extension is required and the Utility must be contacted.

4. Service-drop point of attachment shall be a minimum distance of fifteen-feet (15’) measured horizontally and at a right angle to either side of the center line of the utility pole line.

5. All service-drop, point-of-attachment hardware shall be furnished and installed by the electrical contractor. House knobs shall not be used.

6. SERVICE-DROP VERTICAL CLEARANCE FROM GROUND - See Drawing OS-9.

7. Service-drop conductors shall not pass over a residence, patio cover, or commercial building. See Drawing OS-2. See Drawing OS-9 for proper clearance over unattached buildings.

8. Overhead conductors shall not pass over swimming pools and similar installations nor over an area within ten-feet (10’) horizontally from the inside wall of the pool. For clearance from conductors, contact the Utility before starting construction.
X. SERVICES GENERAL - “UNDERGROUND”:

1. An underground wiring method shall be required whenever the total service size, calculated in accordance with the NEC, exceeds 150 amps.

2. All service-raceways, emerging from the ground, shall be a minimum one-inch (1”) trade-size, galvanized-rigid-steel conduit, galvanized-steel conduit (IMC), schedule 80 PVC conduit or electrical metallic tubing per NEC and State Code.


3. Underground, service-lateral conductors shall be installed in approved conduit buried to a minimum depth of eighteen-inches (18”) and twenty-four-inches (24”) under driveways or heavy traffic areas. Minimum trade-size conduit shall be one-inch (1”).

   **EXCEPTIONS:**
   b) Temporary pedestal: Direct burial, approved conductor, twenty-four-inches (24”) minimum cover.

4. The underground portion of service conduit(s) shall be permitted to be one or a combination of the following approved electrical raceways:

   a) Galvanized-rigid-steel conduit,
   b) Galvanized-intermediate-metal (steel only) conduit (IMC),
   c) Rigid-nonmetallic conduit (PVC),” Schedule 40 minimum.”

5. It is the Utility’s policy to terminate its facilities (either primary or secondary, whichever is required) at a below-grade enclosure or in a padmounted transformer. However, some of the older subdivisions, having underground wiring, do vary due to the preference of the subdivider at the time of the original contractual arrangement. This makes it mandatory for the electrical contractor to check with the Utility for the exact location of service connection for each underground installation. See Drawings US-4 and US-5 for details. For commercial installations see Drawing US-4 and US-17.
X. SERVICES GENERAL - “UNDERGROUND” (cont’d)

6. Connection Procedures:

   a) For residential services from a padmounted transformer, the electrical contractor shall expose and make the necessary connection to the Utility's 2” conduit stub at the transformer, leaving the trench open at the point of connection. The electrical contractor must call the Utility Line Department to make an appointment to have the transformer opened so the service wires can be fed into the transformer. Under no condition shall the contractor push or otherwise install the service-conductors into the transformer without the Utility service crew on site. See ‘Rule 10 Paragraph D’ following this section.

   b) For services from below-grade, terminal enclosures, the electrical contractor must call the Utility Line Dept. to make an appointment to have the enclosure opened so the service wires can be fed into the enclosure. Under no condition shall the contractor push or otherwise install the service-conductors into the enclosure without the Utility service crew on site. See Rule following this section.

   c) For temporary service installation, the electrical contractor shall open the trench and extend to the edge of the transformer pad/enclosure if there is not an existing conduit stubout. The electrical contractor must leave enough wire at the outside of the padmount transformer /enclosure to allow for the connection. The Utility will cover up to five-feet (5’) of trench after completing the connection. See Rule following this section.

   d) Any person with a home-owner’s permit must have the Line Department’s assistance before stubbing conduit into below-grade terminal enclosure.

7. Underground mobile-home service equipment shall be pedestal-type or mounted on wood pole and shall be rain tight equipment. The electrical contractor shall furnish the underground service-conductors to the transformer or the below grade enclosure. The Utility shall make all connections. (See Drawings US-6 or US-7)

8. Joint-use utility easements shall not be used by customer or by contractor.

9. No building or structure shall be located over the service lateral raceway on the line side of the meter.
RULES AND REGULATIONS COVERING ELECTRIC SERVICE

Rule 10 Paragraph D:

“D. Unauthorized Installation, Tampering and Trespass

1. Service wires will not be installed into a padmount transformer, vault or enclosure without an Electric Utility System employee being present on site. Any electrician, contractor, or other person who violates this rule will be subject to a $500 civil penalty, payable to the Farmington Electric Utility. No electric service will be connected for any person violating this paragraph until this penalty is paid”.
XI. MOBILE-HOME PARK:

When THREE (3) or MORE mobile-homes, or provisions for three (3) or more mobile-homes, are placed on an individual parcel of land, it shall be deemed a mobile-home park, and as such, shall comply with the following requirements.

**EXCEPTION:** Mobile-homes that are one-hundred-feet (100’) or more apart (See Section III, Rule 7a)

1. A maximum of ten (10) mobile-home spaces, each having service equipment rated 100 amp at 120/240 volt, shall be permitted to be served from one (1) 200 amp, main-disconnect switch or circuit-breaker in compliance with NEC. Customer with 200 amp rated mobile service shall contact FEUS for approval. Mobile Home Park that has more than two (2) 200 amp mobile homes will be served from one (1) 400 amp, 120/240 volt service disconnect (services over 400 amp will need Electrical Engineer Stamp per New Mexico State Requirements), service equipment shall be rated at 320 amp (for feed through) with 200 amp main-disconnect switch or circuit breaker and breaker space to accommodate Refrigerated-Air (if required) and spaces required by the NEC.

2. All service-lateral conductors from the Utility’s secondary source into the service disconnecting-means shall be installed in approved electrical conduit. See Drawing US-9. The above-grade, conduit riser(s) shall be either galvanized-rigid-steel conduit schedule 80 PVC or galvanized-intermediate-metal (steel only) conduit (IMC). The underground portion shall be permitted to be one or a combination of the following, buried to a depth of eighteen-inches (18”) minimum (see Drawing US-11):

   a) Galvanized-rigid-steel conduit,

   b) Galvanized-intermediate-metal (steel only) conduit (IMC) or

   c) Rigid-nonmetallic conduit (PVC Schedule 40 minimum).

3. Service-lateral conductors from the Utility’s secondary source into the line side of the service disconnecting-means shall have an ampacity not less than the rating of the over-current device. See Drawings US-21 and US-22. For installations other than drawings, contact the Utility.

4. All feeder conductors between the park’s service disconnecting-means and each service-equipment pedestals shall be underground. See Drawings US-1 or US-2.
XI. MOBILE-HOME PARK: (cont’d)

5. Feeder conductors from the load-side of the park’s service disconnecting-means which feed mobile-home spaces shall be permitted to use type “USE” direct burial conductors without conduit, but only when installed at a minimum depth of thirty-six-inches (36”) below finished grade in accordance with Drawing US-1. Conductors installed in approved electrical conduit, as listed in ITEM 2, shall be permitted to be buried at a minimum depth of eighteen-inches (18") below finished grade in accordance with Drawing US-2.

6. Each mobile-home space’s meter shall be installed on an approved metal meter pedestal set in concrete in accordance with Drawing US-6 and in compliance with the NEC, State Code and MHC. Each pedestal shall be durably and legibly marked, displaying the space number.

7. Underground taps/joints/splices are prohibited.

   **EXCEPTION:** Damaged existing-park-feeders may be repaired by an approved method.

8. Mobile-home parks, which are being remodeled, shall be required, for the portion being remodeled, to comply with the same requirements as new parks.

9. All recreational vehicle parks will be installed with underground wiring methods per NEC Article #551
XII. MOBILE-HOME SERVICES ON PRIVATE Lots:

1. Overhead Supply:
   
a) Individual mobile-home lots, privately and individually owned, shall have service equipment rated not less than 100 amps at 120/240 volts in compliance with the NEC, State Code and MHC. See Drawing OS-1.

2. Underground Supply:
   
a) Service equipment shall be 100 amps rated located for compliance with the NEC and State Code and set in concrete in accordance with Drawing US-7. Wood pole may be used in place of the service pedestal. See Drawing US-7.

   
a) Service is sized according to HUD’s name plate located on manufactured home. 100 amps minimum.

b) Service is installed only with prior approval of the Utility.

   1) The manufactured home must be installed on a permanent foundation meeting the Utility requirements. **Permanent foundations must be completed before meter is installed.**

   2) The manufactured home's tongue and axles must be removed.

   3) Manufactured home must be constructed after June 15, 1976 with minimum two-inch by four-inch (2” x 4”) wall frame construction.

   4) Manufactured home may be shipped either with or without the service equipment installed on the home.

   5) An electrical permit for a service lateral is required with a minimum permit fee if service equipment is installed on the home by the manufacturer.

   6) No overhead services will be mounted on manufactured homes.
XII. MOBILE-HOME SERVICES ON PRIVATE LOTS:
(cont’d)

7) Services will not be installed on manufactured homes with metal siding, without prior approval.

8) Meter socket may be installed on modular homes constructed to UBC specifications and set on a permanent foundation with overhead service.

4. City of Farmington electrical inspector's jurisdiction will terminate at the load side of the service disconnecting-means.

5. All service lateral installations will meet all requirements of this Guide and State Code.
XIII. TEMPORARY SERVICES AND METER-POLE SPECIFICATIONS:

1. A temporary service is defined as a service located on a pole or structure for construction or other short-term purposes. In addition to the following requirements, all other rules in this Guide shall apply.

2. All poles shall be round.

3. Temporary poles top diameter shall be four-inch (4”) minimum. All other poles shall be ANSI Rated Class 6 fully pressure-treated poles.

4. Minimum length twenty-foot (20’).

5. Depth of setting:

<table>
<thead>
<tr>
<th>Length of Pole</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>20'</td>
<td>4'- 0&quot;</td>
</tr>
<tr>
<td>25'</td>
<td>4'- 6&quot;</td>
</tr>
<tr>
<td>30'</td>
<td>5'- 0&quot;</td>
</tr>
<tr>
<td>35'</td>
<td>5'- 6&quot;</td>
</tr>
</tbody>
</table>

6. Temporary poles shall be butt-treated to one-foot (1’) above grade level. Existing non-ANSI poles may be re-used with approval from Utility.

7. All electrical equipment shall be rainproof.

8. Grounding electrode shall be 5/8” x 8’ copper-clad rod.

9. Underground temporary services: See Section X, Rule 6C.
XIV. POLICY ON HIGH-VOLTAGE POWER DELIVERY:

3-Phase/13.8kV and Above Primary Metered Customers:

1. The Farmington Electric Utility System (FEUS) will install and maintain the following designated high-voltage equipment on the source side of the metering. The customer shall provide a non-refundable aid-to-construction contribution in the amount FEUS estimates as the installed cost of this equipment. The delivery point of power shall be the utility’s metering. *Point of ownership is negotiable on 115kV and 69kV installations.*

2. Underground systems designated equipment includes: one gang-operated 13.8kV switch on a distribution pole, installed on the source side of the meter; primary meter on a distribution pole; an underground riser pole including lightning arrester; fused cutouts, for the protection of the cable & coordination with the utility system; cable and cable terminators; and up to 300 feet of primary cable, terminated on the customer’s transformer or load-break switching terminal, will be installed on the load-side of the metering. When the padmounted, gang-operated, load-break switching terminal is used, the 13.8kV switch and pole will be deleted. This shall be limited to one transformer, 1500 kVA or smaller.

3. An overhead primary metered 13.8kV services FEUS will install and maintain the following designated high-voltage equipment on the source side of the metering point, to include: a pole mounted 13.8kV gang-operated disconnect switch, and a pole with a recloser if the customer continues on with a primary (13.8kV) system or fuses to coordinate with the Utility system when needed. For a primary system serving a customer’s overhead transformer, the disconnect switch and an additional pole to the customer’s transformer shall be installed and maintained. The maximum distance of the overhead system, beyond the meter, shall not exceed 2-300 foot spans to a transformer. The customer must have a protective device on the high-voltage system. *69kV and 115kV shall require as a point of disconnect a breaker or circuit switcher with isolation switches as appropriate.* Controls and backup relaying are minimum requirements with the equipment remaining under FEUS ownership and operation. Metering including Potential and Current Transformers and accessory equipment shall be provided at the customer’s expense as specified by FEUS. The metering point shall be considered the point of delivery. **Metering shall not be on the low voltage side of transformation. All of the above equipment shall be non-refundable.**

4. The customer shall provide, at his option, a fuse or protect (per NESC) the transformer on the primary side for either underground or overhead with a protective device acceptable to the FEUS. A Contractor providing and/or installing equipment (including transformer pad, conduit, protective devices, etc.) that affects high-voltage system, must furnish plans and receive written approval from the utility, in advance, of any activity.

5. Non-refundable equipment costs related to the metering shall include: pole, potential transformers, meter can, and metering rack. The difference in labor costs of installing primary vs. secondary metering, and the difference in cost of primary vs. secondary current transformer shall also be a non-refundable cost.
6. The primary system shall be furnished on a non-refundable cost basis with FEUS ownership and maintenance responsibility, inclusive of the metering system. The primary system beyond the primary meter, as described and designated above for either underground or overhead systems, shall be maintained and/or replaced at the customer’s expense as a leased system to qualify for the primary discount. The policy recognizes that the customer is charged for the energy losses between the point of delivery and the meter.

(Reference: Rules and Regulations #11-C-6)
XV. CUSTOMER RENEWABLE ENERGY ONE-LINE DIAGRAM:

1. See drawings Figure 6.1 and Figure 6.1A on the following two (2) pages.

2. Customer must call New Service to obtain Interconnection Authorization Form for any photovoltaic or other qualifying renewable resource.
POINT OF INTERCONNECTION

FARMINGTON ELECTRIC
UTILITY SYSTEM LINE

FUSE CUTOUT

DISTRIBUTION TRANSFORMER

NET METERING

KWH RECEIVED

KWH DELIVERED

LOCKABLE BLADE DISCONNECT
UTILITY ACCESSIBLE

CUSTOMERS FEEDERS
BRANCH CIRCUITS

27/59 UNDER/OVER VOLTAGE RELAY
81 U UNDER FREQUENCY RELAY
81 O OVER FREQUENCY RELAY

LEGEND

RELAY REQUIRED IF OPTION
FOR EMISSION GENERATOR

DISTRIBUTED GENERATION AND
OTHER RENEWABLE RESOURCE

RELAY LISTS AND NOTES:

DEVICE FUNCTION
25 SYMPHONISM CHECK
27 UNDERVOLTAGE
32 REVERSE POWER
40 LOSS OF FIELD
41 FIELD CIRCUIT BREAKER
46 NEGATIVE SEQUENCE OR PHASE BALANCE OVERCURRENT
47 PHASE SEQUENCE AND VOLTAGE BALANCE
51V VOLTAGE CONTROLLED TIME CURRENT
51N RESIDUAL - TIME OVERCURRENT
52 CIRCUIT BREAKER
59 OVERVOLTAGE
64 FIELD GROUND
81-O OVERFREQUENCY
81-U UNDERFREQUENCY
WH WATT-HOUR METER
SA SURGE ARRESTER

NOTES
1. RELAYS TO BE UTILITY GRADE.
2. OPTIONAL METERING ARRANGEMENTS AVAILABLE, REFER TO RULE 21.
3. UTILITY DOES NOT SUPPLY PRODUCTION METER.
4. SUGGESTED POWER FACTOR CORRECTION FOR INDUCTION GENERATORS, 0.95 ± PF.

RESIDENTIAL & SMALL FACILITY METER AND INTERCONNECTION
CONFIGURATION (EMISSION GENERATOR - LESS THAN 40 KW)
PHOTOVOLTAIC & OTHER RENEWABLE RESOURCE - <40KW

DATE

REVISION

APPLIED

CITY OF FARMINGTON
ELECTRIC UTILITY SYSTEM

DRAWN BY

CHECKED BY

APPROVED BY

07/08/2020
R. GA
J. ARMENTA
DG-6.1
MEDIUM FACILITY METER AND INTERCONNECTION CONFIGURATION

EMISSION GENERATOR - LESS THAN 100 KW
NON-EMISSION RENEWABLE RESOURCE - >40KW & <500KW

RELAY LISTS AND NOTES:

DEVICE FUNCTION
25 Synchronism Check
27 Undervoltage
32 Reverse Power
40 Loss of Field
47 Field Circuit Breaker
49 Negative Sequence or Phase Balance Overcurrent
51 Voltage Controlled Time Current
52 Residual - Time Overcurrent
59 Circuit Breaker
64 Overvoltage
81-O Overfrequency
81-U Underfrequency
WH Watt-Hour Meter
SA Surge Arrester
+ Not used for induction generators
* Suggested
D Power factor correction for induction generators, 0.95 ≤ PF

NOTES:
1. Relays to be utility grade.
2. Optional metering arrangements available, refer to Rule 21.
3. Utility does not supply production meter.
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NOTES:
1. POLE TO BE 20' IN LENGTH MIN.
2. POLE SHALL BE A ANSI, RATED CLASS 6 FULLY PRESSURE TREATED AND BRANDED 10' FROM THE BUTT.
3. FOR CATHODIC PROTECTION METER POLE. SEE DRAWING #OS-5.
4. THE METER SHALL BE INSTALLED 90' TO 180' FROM THE POINT OF ATTACHMENT.
5. INSTALL THE EYEBOLT IN THE DIRECTION OF THE UTILITY'S SERVICE POLE. AVOID INSTALLING THE EYEBOLT DIRECTLY ABOVE THE WEATHER HEAD.

OVERHEAD 100 AMP SERVICE FOR MOBILE HOME

DATE | REVISION | APP'D. | CHECKED BY | APPROVED BY
--- | --- | --- | --- | ---
1/26/10 | Ground Rod/Receptacle | LUWIL | 05/22/17 | OS-1
8/16/16 | Second Ground Rod Added | LUWIL | LUWIL | J. ARMENTA
SERVICE ENTRANCE – MAST OVERHEAD 200 AMP MAXIMUM

DATE | REVISION | APP'D.
--- | --- | ---

CITY OF FARMINGTON
ELECTRIC UTILITY SYSTEM

DRAWN BY G. THOMPSON 5/10/07
CHECKED BY LUWIL
APPROVED BY GARY

OS-2
NOTE:
SEE PAGE 12 METER SPEC.
BY PASS SWITCH MUST HAVE
A MANUAL HANDLE.
NOTES:

1. POLE TO BE 20' IN LENGTH MIN.

2. POLE SHALL BE A ANSI, RATED CLASS 6 FULLY PRESSURE TREATED AND BRANDED 10' FROM THE BUTT.

3. MOUNT CATHODIC RECTIFIER TO ALLOW FOR SUFFICIENT CLIMBING SPACE.

4. EXISTING 60 AMP. SERVICE CAN BE USE TO SERVE UP TO 7 1/2 HP MOTOR SINGLE-PHASE.

5. 60 AMP. SERVICE INSTALLATION NOT TO BE USED FOR NEW MOTOR LOAD SERVICES.

SERVICE FOR CATHODIC PROTECTION AND SMALL MOTORS

DATE REVISION APP'D. CITY OF FARMINGTON
5/13/09 Serve Small Motors Gary ELECTRIC UTILITY SYSTEM
8/16/16 Second Ground Rod Added Luwil DRAWN BY J. BLUEHOUSE

05/22/17 CHECKED BY LUWIL
APPROVED BY J. ARMENTA OS-5
MAIN DISCONNECT REQUIRED

3/4" RIGID STEEL CONDUIT OR IMC MINIMUM

60 AMP MINIMUM

#6 BARE CU.

6' (MIN.) BETWEEN GROUND RODS

#6 BARE CU.

5/8" x 8'-0" COPPER-CLAD GROUND ROD

FINISHED GRADE

T.V. AMPLIFIER ONLY

CITY OF FARMINGTON
ELECTRIC UTILITY SYSTEM

DATE | REVISION | APP’D. | DRAWN BY | CHECKED BY | APPROVED BY
--- | --- | --- | --- | --- | ---
8/16/16 | Second Ground Rod Added | LUWIL | J. BLUEHOUSE | LUWIL | J. ARMENDA

OS-6
NOTES:

1. SERVICE DROP MAY CROSS OVER UN–OCCUPIED BUILDING NOT ATTACHED TO RESIDENCE OR COMMERCIAL BUILDING. EXAMPLE: BUILDINGS USED FOR STORAGE, AUTOMOTIVE GARAGE, ETC.
2. RISER SHALL NOT BE NO MORE THAN 6’–0” HIGH OVER THE ROOF.
3. RISER OVER 3’–0” HIGH MUST GUY BACK.
4. GUY WIRE ANCHOR SHALL BE IN LINE WITH THE SERVICE POLE.

SERVICE CLEARANCE

<table>
<thead>
<tr>
<th>DATE</th>
<th>REVISION</th>
<th>APP’D</th>
<th>CITY OF FARMINGTON ELECTRIC UTILITY SYSTEM</th>
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<tbody>
<tr>
<td>11/18/13</td>
<td>RISER</td>
<td>LUWIL</td>
<td>OS–9A</td>
</tr>
</tbody>
</table>

DRAWN BY

J. BLUEHOUSE

CHECKED BY

LUWIL

APPROVED BY

J. ARMENTA
FEEDER CONDUCTORS PAST MAIN DISCONNECTING MEANS.
IN APPROVED ELECTRICAL CONDUIT:

(A) GALVANIZED RIGID STEEL

(B) GALVANIZED STEEL (IMC)

(C) PVC—SCHEDULE 40 MINIMUM
NOTES:
1. ON ALL RESIDENTIAL AND COMMERCIAL SERVICES, 600 AMP AND UNDER, A DISCONNECTING MEANS IS REQUIRED AT THE METER LOCATION. SEE PAGE #8.
2. MAXIMUM CONDUCTOR SIZE 500 MCM.
NOTES:
1. ON ALL RESIDENTIAL AND COMMERCIAL SERVICES, 600 AMP AND UNDER, A DISCONNECTING MEANS IS REQUIRED AT THE METER LOCATION. SEE PAGE #8.
2. FOR CONNECTION PROCEDURE SEE ITEM 6(b), PAGE 14.
3. MAXIMUM CONDUCTOR SIZE 500 MCM.
NOTES:
1. ON ALL RESIDENTIAL AND COMMERCIAL SERVICES, 600 AMP AND UNDER, A DISCONNECTING MEANS IS REQUIRED AT THE METER LOCATION. SEE PAGE #8
2. FOR CONNECTION PROCEDURE SEE ITEM 6(a) PAGE 13
3. TWO GROUND RODS ARE REQUIRED, INSTALLED 6' (MIN.) APART.
4. MAXIMUM CONDUCTOR SIZE 500 MCM.

---

SUBDIVISION PADMOUNT TRANSFORMER

---

100 AMPERE (MINIMUM)

1" MIN. RIGID STEEL, IMC (STEEL) OR SCH. 80 PVC

#6 BARE CU.

FINISHED GRADE

---

6'-0"

---

CONNECTION BY CONTRACTOR (TYPICAL)

5/8" x 8'-0" COPPER-CLAD GROUND ROD

6" (MIN.) BETWEEN GROUND RODS

---

2" STUBOUT BY UTILITY

---

UNDERGROUND SERVICE ENTRANCE RESIDENTIAL SUBDIVISION ONLY

CITY OF FARMINGTON
ELECTRIC UTILITY SYSTEM

DRAWN BY    CHECKED BY    APPROVED BY
C. THOMPSON/ L.WIL     J. ARMENDA
J. BLUEHOUZE  04/30/18
100 AMP PEDESTAL

CONCRETE SHALL BE OF A SUFFICIENT AMOUNT TO SECURE AND HOLD METER PEDESTAL IN A PLUMB AND RIGID POSITION IN ALL SOIL CLASSIFICATIONS.

5/8" x 8'-0" COPPER-CLAD GROUND ROD

#6 BARE CU.

6" MIN.

FINISHED GRADE

INSTALL PER MANUFACTURE RECOMMENDATION

6" MIN.

NOTES:
1. PROVISIONS (SPACE) FOR CONNECTING MOBILE HOME BY PERMANENT WIRING METHODS.
2. PROVISIONS (SPACE) FOR SINGLE POLE CIRCUIT BREAKER FOR ACCESSORY BUILDING.
3. ONE 15 OR 20 AMP RECEPTACLE WITH GFCI PROTECTION.
4. ONE 50 AMP RECEPTACLE PROTECTED BY ONE 50 AMP 2 POLE CIRCUIT BREAKER.
5. MAXIMUM CONDUCTOR SIZE 500 MCM.
NOTES:
1. POLE SHALL BE ROUND AND FULLY PRESSURE TREATED
   6" MINIMUM DIAMETER, A CUT POLE WITH AN UNTREATED
   TOP WILL BE ACCEPTED.
2. 4" x 6" x 8'-0" FULLY PRESSURE TREATED TIMBER.
3. ALL OTHER APPROVED MOUNTING METHOD.
4. MAXIMUM CONDUCTOR SIZE 500 MCM.
NOTES:
2. NOT LESS THAN 60 INCHES OF WIRE BEYOND SERVICE HEAD FOR TAPPING TO DROP.
3. GROUND WIRE TO BE #6 BARE CU. MINIMUM.
4. MAXIMUM CONDUCTOR SIZE 500 MCM.
5. A COMMUNICATION WORKER SAFETY ZONE IS 40 INCHES OF CLEARANCE BETWEEN COMMUNICATION LINES AND SUPPLY LINES/EQUIPMENT PER NESC RULE 235C4 AND 238E.

TYPICAL SERVICE RISER – POLE MOUNTED

DATE | REVISION | APP’D | CITY OF FARMINGTON
5/10/07 | Sec. Pedestal, Raised Conduit’ | LUWIL | ELECTRIC UTILITY SYSTEM
9/01/17 | GROUNDING & BONDING ADDED | LUWIL | DRAWN BY J. BLUEHOUSE
         |                     |       | CHECKED BY LUWIL
         |                     |       | APPROVED BY J. ARMENTA

US-9
NOTES:
1. ON ALL RESIDENTIAL AND COMMERCIAL SERVICES, 600 AMP AND UNDER, A DISCONNECTING MEANS IS REQUIRED AT THE METER LOCATION. SEE PAGE #8.

2. WHEN PULLING CONDUCTORS FROM A TRANSFORMER OR SECONDARY PULL BOX TO THE METER CAN, CONDUCTORS MUST RUN ON EITHER SIDE OF THE TERMINAL BLOCK. CONDUCTORS THAT RUN BEHIND THE METER SOCKET ARE UNACCEPTABLE, SEE DRAWING FOR DETAIL.

3. MAXIMUM CONDUCTOR SIZE 500 MCM.

---

**SINGLE PHASE SERVICE ENTRANCE – 201 THRU 400 AMP**

**DATE** | **REVISION** | **APP’D**
--- | --- | ---

**CITY OF FARMINGTON**
**ELECTRIC UTILITY SYSTEM**

**DRAWN BY**
G. THOMPSON/
J. BLUENQUE
04/30/18

**CHECKED BY**
LUWL

**APPROVED BY**
J. ARMENTA

**US-11A**
NOTES:
1. ON ALL RESIDENTIAL AND COMMERCIAL SERVICES, 600 AMP AND UNDER, A DISCONNECTING MEANS IS REQUIRED AT THE METER LOCATION. SEE PAGE #8.
2. MAXIMUM CONDUCTOR SIZE 500 MCM.
1. On all residential and commercial services, 600 AMP and under, a disconnecting means is required at the meter location. See page #8.

2. Maximum conductor size 500 MCM.

---

**3 Phase Service Entrance – 201 Thru 600 AMP**

**CITY OF FARMINGTON**

**ELECTRIC UTILITY SYSTEM**

**DRAWN BY**

C. THOMPSON
J. BLUENHOUSE
04/30/18

**CHECKED BY**

LUWIL

**APPROVED BY**

J. ARMENTA

**US-12A**
CIRCLE A-W-420 DURHAM
#1005058 MILBANK
364812-CT3R-WB OR EQUAL

1" MIN.

MILBANK UC3423 XL
OR EQUAL

FOR PULSE METERING
CONTACT THEUTILITY
AND SEE NOTES ON
DRAWING US-15A

RIGID STEEL, IMC
(STEEL) OR
SCHEDULE 80 PVC

#6 BARE CU

6" (MIN.)
BETWEEN
GROUND RODS

SERVICE
DISCONNECT

FINISHED GRADE

#6 BARE CU

SECOND
GROUND ROD

TO UTILITY

NOTES:

1. CONDUCTORS MUST ENTER BOTTOM CORNER AND EXIT TOP OPPOSITE CORNER OF CT
   CABINET.

2. MAXIMUM OF 12 CONDUCTORS.

3. MAXIMUM CONDUCTOR SIZE 600 MCM. EXCEPTION: 8-750 MCM MAY BE ALLOWED.

4. FOR LARGER SERVICES SEE DRAWING US-14 AND US-14A.

5. SERVICE DISCONNECT MAY BE LOCATED INSIDE THE STRUCTURE.

6. IF MORE THAN ONE DISCONNECT IS USED, A BUSSED GUTTER MAY BE REQUIRED.

THREE PHASE SERVICE ENTRANCE - 601 THRU 1200 AMP

DATE: 1/2016

REVISION: UC3423-DL TO UC3423-XL

APPROVED: LUMIL

CITY OF FARMINGTON

ELECTRIC UTILITY SYSTEM

DRAWN BY:

CHECLED BY:

APPROVED BY:

HOWELL

J. THOMPSON

LUMIL

J. ARMENTA

US 13
CONCRETE SHALL BE OF A SUFFICIENT AMOUNT TO SECURE AND HOLD THE ENCLOSURES IN A PLUMB AND RIGID POSITION IN ALL SOIL CLASSIFICATIONS.

FOR PULSE METERING CONTACT THE UTILITY AND SEE NOTES ON DRAWING US-15A

RIGID STEEL, IMC (STEEL) OR SCHEDULE 80 PVC

6' (MIN.) BETWEEN GROUND RODS

5/8"x 8'-0" COPPER-CLAD GROUND ROD

NOTES:
1. CONDUCTORS MUST ENTER BOTTOM CORNER AND EXIT TOP OPPOSITE CORNER OF CT CABINET.
2. MAXIMUM OF 12 CONDUCTORS.
3. MAXIMUM CONDUCTOR SIZE 600 MCM. EXCEPTION: 8–750 MCM MAY BE ALLOWED.
4. FOR LARGER SERVICES SEE DRAWING US-14 AND US-14A.
5. SERVICE DISCONNECT MAY BE LOCATED INSIDE THE STRUCTURE.
6. IF MORE THAN ONE DISCONNECT IS USED, A BUSSED GUTTER MAY BE REQUIRED.
NOTES:
1. CONTACT UTILITY FOR SPECIFICATIONS FOR TRANSFORMER PAD.
2. MAXIMUM NUMBER OF CONDUCTORS, VERIFY WITH UTILITY.
3. AT THE OPTION OF THE UTILITY A TROUGH MAY BE USED IN PLACE OF THE SUPPLY CONDUITS.
NOTES:

1. At the option of the utility, this installation will only be used for dedicated transformers, utilizing 120/208V or 277/480V 30 services above 600 amps.

2. For the maximum number of conductors, contact the utility.
NOTES
1. CABINET BUILT OF 12 GA. STEEL TO NEMA 3R AND WESTERN UNDERGROUND SPECS., PRIMED AND PAINTED.
2. METER SOCKET MAY BE MOUNTED ON EITHER SIDE OF C.T. ENCLOSURE.
3. CUSTOMER WILL FURNISH AND INSTALL BOTH ENCLOSURES.
4. UTILITY WILL FURNISH AND INSTALL C.T.'S, METER AND METER WIRING.
5. MAXIMUM NUMBER OF CONDUCTORS TO BE VERIFIED WITH UTILITY.
6. WHEN USING MORE THAN 4 PARALLEL CONDUITS, A LARGER ENCLOSURE MAY BE REQUIRED.

120/208-277/480V CT & PT METERING ENCLOSURE

DATE | REVISION | APP'D. | CITY OF FARMINGTON
|------|----------|--------|----------------------
|      |          |        | ELECTRIC UTILITY SYSTEM

DRAWN BY: J. THOMPSON/10/26/18
CHECKED BY: LUWIL
APPROVED BY: J. ARMENTA

US-15
NOTES:

1. CUSTOMER TO FURNISH AND INSTALL A 4” x 4” x 6” (OR SIMILAR) WEATHERPROOF LOCKABLE JUNCTION BOX. A KYZ TERMINAL STRIP MOUNTED INSIDE THE JUNCTION BOX WITH ITS TERMINALS MARKED K, Y, AND Z. THE KILOWATT HOUR CONSTANT WILL BE MARKED INSIDE THE JUNCTION BOX.

2. CUSTOMER WILL PROVIDE AND INSTALL ALL CONDUIT AND WIRING FOR HIS SIDE OF THE TERMINAL STRIP AND BOX. ACCESS TO THE BOX SHALL BE UNDER CUSTOMER CONTROL. CUSTOMER WILL BE RESPONSIBLE FOR PROVIDING A LOCK FOR THE BOX AND LOCKING IT.

3. PLEASE NOTE. THERE IS A CHARGE FOR THIS OPTION.
NOTES:
VERIFY WITH UTILITY
1. BAR TYPE CT's MAY BE USED IN PLACE OF "DONUT TYPE" CT's.
2. MAXIMUM NUMBER OF CONDUCTORS, VERIFY WITH UTILITY.
NOTES:
1. CONDUITS SHALL BE IN PLACE BEFORE BACKFILL AND COMPACTION IS STARTED.
2. COMPACTION SHALL BE 95% TEST BY MODIFIED PROCTOR BY A CERTIFIED TESTING LAB. A COPY OF THE COMPACTION REPORT SHALL BE DELIVERED TO THE ELECTRICAL ENGINEERING OFFICE PRIOR TO POURING OF CONCRETE PAD.
3. USE 3,000 P.S.I. CONCRETE WITH NO. 4 RE-BAR.
4. CONCRETE PAD SHALL BE LEVEL AND HAVE A SMOOTH TROWELED FINISH.
5. PRIOR TO POURING OF PAD THE CITY WILL REQUIRE 12 HOURS NOTICE FOR INSPECTION.
6. PRIMARY CONDUIT MUST EXTEND A MINIMUM OF 3 FEET FROM CONCRETE PAD.
7. PRIMARY CONDUIT 90° ELL SHALL BE INSTALLED 42” IN DEPTH FROM FINAL GRADE AND EXTEND UPWARD 6” ABOVE FINAL GRADE.
8. DIRECTION OF PRIMARY CONDUIT FROM CONCRETE PAD WILL BE DETERMINED BY FARMINGTON ELECTRIC UTILITY SYSTEM.
9. CUSTOMER TO INSTALL 2–4” x 6’ STEEL GUARD PIPE IN CONCRETE TO BE SPOTTED BY THE CITY OF FARMINGTON, IF IN TRAFFIC AREA.
10. NO CONCRETE IN TROUGH AREA.
11. CONTRACTOR WILL FURNISH ALL MATERIAL AND LABOR.

<table>
<thead>
<tr>
<th>TRANSFORMER PAD – COMMERCIAL SERVICE</th>
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<tbody>
<tr>
<td>DATE</td>
</tr>
<tr>
<td>CITY OF FARMINGTON ELECTRIC UTILITY SYSTEM</td>
</tr>
<tr>
<td>DRAWN BY:</td>
</tr>
<tr>
<td>G. THOMPSON</td>
</tr>
<tr>
<td>10/26/18</td>
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</tbody>
</table>

SAMPLE ONLY NOT FOR CONSTRUCTION, CONTACT UTILITY FOR DIMENSIONS

FURNISHED AND INSTALLED BY CONTRACTOR

CONTACT UTILITY FOR PRIMARY CONDUIT SIZE AND DIRECTION OF FEED. SEE NOTE NO. 6.

HIGH VOLTAGE COMPARTMENT
SECONDARY COMPARTMENT
TROUGH AREA

SECTION A–A

1” CHAMFER

No. 4 REBAR

FINISH GRADE

A

A

FINISH GRADE

42” MIN.

18” MIN.

1” MIN.
NOTES:

THE SERVICE DISCONNECTING MEANS SHALL CONSIST OF NOT MORE THAN SIX SWITCHES WITH FUSES OR SIX CIRCUIT BREAKERS GROUPED AT ONE LOCATION ON A BUILDING, INCLUDING MULTIPLE OCCUPANCY BUILDINGS. EXCEPTION ONE ADDITIONAL FOR FIRE PROTECTION.

SEE ITEM #2&3-PAGE 8
If there are more than six switches or six circuit breakers grouped at one location on a building, a main disconnect switch with fuses or a main circuit breaker shall be installed.
RIGID STEEL, IMC (STEEL) OR SCHEDULE 80 PVC

1 5/8" UNISTRUT (MINIMUM)

GROUND LEVEL

6'-0" MAX.

5/8" x 8'-0" COPPER-CLAD GROUND ROD

6' (MIN.) BETWEEN GROUND RODS

#6 BARE CU.

SECOND GROUND ROD

18" MIN.

TO UTILITY

CONCRETE SHALL BE OF A SUFFICIENT AMOUNT TO SECURE AND HOLD THE ENCLOSURE IN A PLUMB AND RIGID POSITION IN ALL SOIL CLASSIFICATIONS.

TO METER PEDESTALS

SERVICE DISCONNECT

SEE PAGE 16-#5
CONCRETE SHALL BE OF A SUFFICIENT AMOUNT TO SECURE AND HOLD THE ENCLOSURES IN A PLUMB AND RIGID POSITION IN ALL SOIL CLASSIFICATIONS.

NOTE: FOR MORE THAN TWO DISCONNECTS AT ONE LOCATION, CONTACT THE UTILITY.
NOTE: FEEDER RACEWAY MUST EXTEND TO DISCONNECT.

CONCRETE SHALL BE OF A SUFFICIENT AMOUNT TO SECURE AND HOLD THE ENCLOSURE IN A PLUMB AND RIGID POSITION IN ALL SOIL CLASSIFICATIONS.
CONCRETE SHALL BE OF A SUFFICIENT AMOUNT TO SECURE AND HOLD THE ENCLOSURE IN A PLUMB AND RIGID POSITION IN ALL SOIL CLASSIFICATIONS.

NOTE:
1. UN-METERED 120V SERVICE FOR SCHOOL CROSS WALKS ONLY.
2. FEEDER RACEWAY MUST EXTEND TO DISCONNECT.
NOTE:
1. STRAP CONDUIT TO ALUMINUM STREET LIGHT POLE.
2. UN-METERED 120V SERVICE FOR PARKS AND RECREATION, TIME CLOCK CONTROLS ONLY.
3. DO NOT COVER HANDHOLE ON ALUMINUM POLE WITH CONDUIT.

1/2" RIGID STEEL IMC (STEEL) OR SCHEDULE 80 PVC (MINIMUM)

FINISHED GRADE

CONDULET MAY BE USED TO TRAIN CONDUIT OVER STREET LIGHT BASE. USE TAMPER PROOF SCREWS

TIME CLOCK HOUSING

SERVICE DISCONNECTING MEANS WITH LOCKING PROVISIONS

#6 BARE CU.

5/8" x 8'-0" GROUND ROD

120V SERVICE ENTRANCE – ALUMINUM POLE
NOTES:

1. BRACKET TO BE FASTENED TO POLE WITH 5/8” GALVANIZED MACHINE BOLT IN THE TOP HOLE. A 1/2” x 4” GALVANIZED LAG SCREW MAY BE USED IN BOTTOM HOLE IN PLACE OF MACHINE BOLT.

2. BRACKET SUITABLE FOR 2–3/4”, 2–1”, 2–2”, 2–3”, 1–4”, 1–5”.

<table>
<thead>
<tr>
<th>SIZE CONDUIT</th>
<th>X</th>
<th>Y</th>
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<tbody>
<tr>
<td>3/4”</td>
<td>1 1/2”</td>
<td>2”</td>
</tr>
<tr>
<td>2”</td>
<td>2 7/8”</td>
<td>3 5/8”</td>
</tr>
<tr>
<td>4”</td>
<td>5”</td>
<td>5 3/4”</td>
</tr>
<tr>
<td>5”</td>
<td>6 1/16”</td>
<td>6 13/16”</td>
</tr>
</tbody>
</table>

TYPICAL 1/2” U–BOLT

CONDUIT SUPPORT BRACKET

DATE | REVISION | APP’D. | CITY OF FARMINGTON ELECTRIC UTILITY SYSTEM
---|---|---|---

DRAWN BY G. THOMPSON 6/18/07 | CHECKED BY LUWIL | APPROVED BY GARY | US–28
PLEASE CONTACT FEUS FOR METER SPOT OR FOR ANY QUESTIONS. (505–599–8310)
P – PRIMARY COMPARTMENT
S – SECONDARY COMPARTMENT

UNDERGROUND TEMPORARY SERVICE
GROUND LEVEL INSTALLATION

Exhibit 5

MOBILE HOME TO BE INSTALLED FLUSH WITH THE OUTSIDE EDGE OF THE BLOCK RETAINING WALL

Ribbon Footings may be installed perpendicular to the Manufactured Home Frame. See Manufacturer's installation requirements or State and Local Codes.

Some Manufactured Homes may require more than two Ribbon Footings.

Block Piers See Page 2 Item H, I and Page 4

Ribbon Footing See Page 1 Item C–1 and Page 3

Retaining Wall See Page 1 Items C–2 Thru 6

Ribbon Footing See Page 1 Item B

Length as Necessary
1. AC DISCONNECT SWITCHES SHALL BE LOAD BREAK RATED AND LOCKABLE.
2. CUSTOMER PRODUCTION METER IS OPTIONAL.
3. METER SOCKETS AND ENCLOSURES REFER TO PAGE 12 OF FEUS METER AND SERVICE GUIDE.
4. DISCONNECT TO ELIMINATE SOLAR POWER SOURCE WHEN WORKING ON FEUS METER AND POWERLINE SYSTEM.
NOTES:
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2. CUSTOMER PRODUCTION METER IS OPTIONAL.

3. METER SOCKETS AND ENCLOSURES REFER TO PAGE 12 OF FEUS METER AND SERVICE GUIDE.

4. DISCONNECT TO ELIMINATE SOLAR POWER SOURCE WHEN WORKING ON FEUS METER AND POWERS/Electric SYSTEM.
COMMERCIAL ELECTRICAL SERVICE

PROCEDURE FOR PROCESSING ELECTRICAL SERVICE REQUESTS

The following procedure has been established as the most efficient means to provide electric service in an orderly manner without delay. This procedure works best when all parties cooperate to provide accurate, complete, and timely data.

1. It is the responsibility of the architect, engineer, contractor, builder or owner to submit to FEUS Electric Engineering Division a service request for the proposed project. The request should provide sufficient lead-time for field visit, design, determination of charges, and construction.
2. A completed load data sheet prepared by a qualified party must be included with all requests for service. Service-conductors and service-riser locations shall be determined by FEUS Electric Engineering Division.
3. **Additional Charges**: FEUS designs to the specific information on this form. Significant changes may result in additional charges. Charges may include, but not be limited to, additional engineering, equipment or conductor change-out and incurred labor.

Customer’s Name: ___________________________ Phone Number: ___________________________
Service Address: ____________________________________________
Customer’s Mailing Address: ___________________________________
Electrical Contractor: ___________________________ Phone Number: ___________________________
Permit Number: _____________________________________________

ELECTRICAL LOAD AND SERVICE ENTRANCE INFORMATION

**Type:** ☐ OH ☐ RISER ☐ URD  **Voltage:** ☐ 120/240V ☐ 120/208V ☐ 277/480V ☐ 240/480V  **Phase:** ☐ 1Ø ☐ 3Ø
**Service Size:** ______________________ **Conductor Size:** ______________________ **Conduit Size:** ______________________
Parallel Conductor: ☐ Yes ☐ No  **Number of Parallel Runs:** ______________________
Lighting: ______________________  **Receptacles:** ______________________
Electric Range/Oven: ______________________  **Electric Dryer:** ______________________
Electric Hot Water Heater: ______________________  **Electric Heat:** ______________________
Refrigerated Air Conditioner - Number of Units: ____  **Tons per Unit:** ______________________
Kilns: ______________________  **Elevators:** ______________________
Motors: (List all motors, indicate 1Ø or 3Ø by Horsepower, Voltage, Starting-Current)

Welders: (List all Welders, indicate 1Ø or 3Ø)

Miscellaneous Load: ______________________

**TOTAL LOAD:** ______________________ **Amps**

Customer Name (print) ___________________________ Signature ___________________________ Date ____________
Electrician Name (print) ___________________________ Signature ___________________________ Date ____________

We at F.E.U.S. appreciate the privilege of serving you
RESIDENTIAL ELECTRICAL SERVICE

PROCEDURE FOR PROCESSING ELECTRICAL SERVICE REQUESTS

The following procedure has been established as the most efficient means to provide electric service in an orderly manner without delay. This procedure works best when all parties cooperate to provide accurate, complete, and timely data.

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```
Customer’s Name: _____________________________ Phone Number: ________________________________
Service Address: _____________________________________________________________
Customer’s Mailing Address: ______________________________________________________
Electrical Contractor: _____________________________ Phone Number: ________________________________
Permit Number: _____________________________
```

ELECTRICAL LOAD AND SERVICE ENTRANCE INFORMATION

```
Type: [ ] OH [ ] Riser [ ] URD Voltage: [ ] 120/240V [ ] 120/208V [ ] 277/480V [ ] 240/480V Phase: [ ] 1Ø [ ] 3Ø
Service Size: ___________ Conductor Size: ___________ Conduit Size: ___________
Square Footage of Home: ___________ Parallel Conductor: [ ] Yes [ ] No Number of Parallel Runs: ________
Lighting: _____________________________ Receptacles: _____________________________
Electric Range/Oven: _____________________________ Electric Dryer: _____________________________
Electric Hot Water Heater: _____________________________ Electric Heat: _____________________________
Refrigerated Air Conditioner: Number of Units: ___________ Tons per Unit: ___________
Evaporative Cooler: Number of Units: ___________ Motor Size per Unit: ___________
Kilns: _____________________________ Welder: _____________________________ Hot Tub: _____________________________
Miscellaneous Load: _____________________________
```

TOTAL LOAD: _____________________________ Amps

```
Customer’s Name (print) _____________________________ Signature _____________________________ Date _____________
Electrician’s Name (print) _____________________________ Signature _____________________________ Date _____________
```

We at F.E.U.S. appreciate the privilege of serving you