

POLICIES, STANDARDS and SPECIFICATIONS
FOR ELECTRIC SERVICE TO
RESIDENTIAL and COMMERCIAL DEVELOPMENTS



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**KOSRAE UTILITIES AUTHORITY
KOSRAE, FSM**

1. PURPOSE

This publication of the Kosrae Utilities Authority (KUA), is provided to assist customers, architects, engineers, developers, contractors and inspectors in the planning and installation of electric service to residential and commercial developments.

It is not intended that any requirement be unduly restrictive or burdensome, but that these Policies, Standards and Specifications will serve to promote safety, expedite service connection and improve service reliability by establishing uniform and equitable expectations and responsibilities in providing for electric service.

No set rule or instruction will cover all conditions. We welcome and encourage all inquiries concerning any unusual or special needs and to provide clarification in the application of these Policies, Standards and Specifications. The particular needs or operational objectives of a specific development may lead to utility system design specifications which exceed those stated in this publication. To the extent that any KUA utility construction plan, specification or construction drawing conflicts with this publication, the construction plan, specification or construction drawing shall supersede these policies.

This publication is intended to supplement and not conflict with any applicable local or state laws or policies, the *National Electrical Safety Code*® or the *National Electrical Code*® that may now exist or be promulgated in the future. If any portion of these Policies, Standards and Specifications is found to conflict with local or state laws, the *National Electrical Safety Code*® or the *National Electrical Code*®, then the provisions of the local or state laws, the *National Electrical Safety Code*® or the *National Electrical Code*® shall supersede these policies only to the extent of the conflict.

Because of changes in material, engineering design and construction practices, some provisions of these policies may be revised from time to time. It is

important, therefore, to establish direct contact with the KUA representative to assure a mutual understanding of the service needs and to communicate pertinent information not yet published.

Implementation of these Policies, Standards and Specifications was approved by the Board of Directors of the Kosrae Utilities Authority at a Regular Board Meeting on March 27, 1998.

2. DEFINITIONS

2.1 **Clearance** - The shortest distance between any two surfaces.

2.2 **Conduit System** - Below grade raceways for underground electric distribution lines including concrete bases or pads, concrete encasement, pullboxes, manholes, pipe, adapters, couplings, elbows and sweeps.

2.3 **Construction Service** - Electric service for use during the period of construction of a building which will later receive permanent service.

2.4 **Contractor** - The corporation, company, partnership, firm or individual who has entered into a contract with the developer/owner to fulfill a specific task.

2.5 **Customer** - Any person, firm, partnership, company, corporation, association, government agency or similar organization, who makes application for and is supplied with electric service by the KUA for the customer's ultimate use. Where service is provided to the same user at several locations, each service location shall be a separate customer. Also, for purposes of this publication, the prospective user of electric service or the user's designated representative.

2.6 **Contribution-In-Aid-of-Construction (CIAC)** - The contribution by the customer/developer to the

KUA to help defray the additional costs to the KUA for providing service which is beyond the standard and customary or available service.

2.7 **Developer** - Any person or group (property owner or designated representative) improving a parcel of land which will produce more than one electric customer.

2.8 **Easement** - The limited right to use the real property of another for a specific purpose.

2.9 **Enclosure** - Junction Box or Cabinet.

2.10 **Facility** - Any cable, conductor, conduit, hardware, junction box, meter, pedestal, pole, pullbox, switchgear, transformer, etc., used to provide electric service and are the property of the KUA.

2.11 **Final Grade** - The elevation to which the property, subdivision lots, road surface, shoulders, drainage and adjacent property are to be constructed as shown on the construction plans.

2.12 **Final Plat** - Copy of the plat to be recorded with the governing body.

2.13 **Grade** - The inclination, to the horizontal, of any line which is generally expressed by stating the vertical rise or fall as a percentage of the horizontal distance.

2.14 **Meter** - Any device used for the purpose of measuring the service rendered to a customer by the KUA.

2.15 **Overhead Construction (OH)** - The standard placement of electric distribution lines and equipment supported by poles.

2.16 **P.L.** - Property Line.

2.17 **Plat** - A map or drawing depicting the division of land into lots, blocks, parcels, tracts, sites or other divisions.

2.18 **Point of Delivery** - The point of interconnection between KUA facilities (service drop or underground service lateral)

and the customer's service entrance conductors. Typical points of delivery include weatherhead, meter enclosure, service junction box, handhole, padmount transformer and vault.

2.19 **Recorded Plat** - A plat that has been officially recorded the governing body and issued a plat book number and page number.

2.20 **Replat** - The resubdivision of any parcel of land as described in Section 2.19.

2.21 **Right-of-Way** - A strip of land occupied or intended to be occupied by a road, electric power line, pipeline, water main, wastewater or other similar use.

2.22 **Roadway** - The portion of the right-of-way which contains the road, pavement, gutter and shoulders.

2.23 **Service** - The supply by the KUA of electricity to the customer, including the readiness to serve and availability of electrical energy at the customer's point of delivery at the standard available voltage and frequency whether or not utilized by the customer.

2.24 **Service Drop** - The overhead service conductors from the last utility pole or other aerial support to the point of delivery including the splices, if any, connecting the service drop to the service entrance conductors.

2.25 **Service Entrance** - The customer's facilities and equipment beyond the point of delivery including the service equipment.

2.26 **Service Entrance Conductors** - The service conductors between the terminals of the service equipment and a) a point, usually outside the building, clear of building walls, where joined by tap or splice to the service drop, for overhead service; or b) the point of connection to the service lateral, for underground service.

2.27 **Service Equipment** - The customer's equipment, usually consisting of circuit-breaker or switch and fuses and their accessories, connected to the supply conductors of a building.

- 2.28 **Service Installation** - The customer's installation consists of and includes all wires, enclosures, switches, appliances and other apparatus, (except meters and associated metering equipment), including the service entrance, service entrance conductors and service equipment, forming the customer's facilities utilizing service for any purpose on the customer's side of the point of delivery.
- 2.29 **Service Location** - The physical location in the field where the point of delivery is located. The service location is specified by KUA.
- 2.30 **Site Plan** - Lot layout plan including dimensions such as arcs, angles, bearings, road configuration and road names.
- 2.31 **Street Lighting System (Underground)** - Conduit, cable, connectors, poles and other facilities required to provide service to street light fixtures.
- 2.32 **Subdivision** - Any parcel of land being subdivided into lots or tracts for purposes of development, resale or rental or other purpose. (As used in this policy, a subdivision may refer to, but is not limited to single family residential developments, duplex or multi-family developments, commercial/industrial parks, office parks, shopping centers, etc.)
- 2.33 **Submeter** - A meter installed beyond the service meter to measure a portion of the customer's service. Submeters are not permitted for the purpose of selling or otherwise disposing of electric service to lessees, tenants or others.
- 2.34 **Temporary service** - Electric service to a customer where the facility served will be removed after a limited period of time, e.g., bazaar, camp, display, exhibition, fair, freezer, holiday lighting, etc.
- 2.35 **Transformer Vault** - An isolated room with fire resistant walls, ceilings and floor, in which transformers and related electrical equipment are installed.
- 2.36 **Underground Construction (UG)** - The

placement of electric distribution lines below final grade. Some electric distribution facilities such as, but not limited to, pads, transformers, switchgear and pedestals are installed above ground.

- 2.37 **Underground Primary** - Conduit, cable, connectors and other facilities used for distributing electric power to and between manholes, poles, pullboxes, switches, transformers, etc., at primary voltage.
- 2.38 **Underground Residential Distribution (URD)** - An underground distribution system designed primarily to serve residential dwelling units with single-phase, three wire, underground service laterals.
- 2.39 **Underground Secondary** - Conduit, cable, connectors and other facilities used for providing electric power to and between manholes, pedestals, poles, pullboxes, transformers, etc., at secondary voltage.
- 2.40 **Underground Service Lateral** - The underground conductors between the transformer secondary (including any riser at a pole or other structure) and the point of delivery.
- 2.41 **Utility Easement** - The right to make limited use of the real property of another for purposes related to supplying utility services.
- 2.42 **Vault** - See Transformer Vault.

3. GENERAL INFORMATION

Supply and Use of Service

3.1 General

The KUA offers electrical service from both overhead and underground distribution facilities. This policy shall apply to residential, commercial governmental and industrial installations receiving or requesting service from the KUA.

3.2 Service

Service includes all power and energy required by the customer and, in addition, the readiness and ability on the part of the KUA to furnish power and energy to the

customer. The availability of the standard agreed voltage and frequency by the KUA at the point of delivery shall constitute the rendering of service, irrespective of whether the customer makes any use thereof.

3.3 Availability of Service

The KUA may supply electricity to any applicant for service throughout the territory it serves, subject to the applicable conditions for service contained in these Policies, Standards and Specifications and the General Rules and Regulations for Electric Service adopted by the KUA. If the standard type of service available does not meet the customer's requirements, the KUA will consider supplying the type of service desired, subject to availability and provided the manner of use will not jeopardize the quality of service to other customers. It may also be necessary for the customer to compensate the KUA for any extraordinary costs of supplying such service. If special equipment is required, adequate time must be scheduled for procurement of such equipment.

3.4 Service Location

The customer shall contact the KUA to determine the service location. The KUA representative will give consideration to the customer's service location preference, but shall reserve the right to **designate the service location** for each new electrical service provided and for each existing electrical service where the service entrance is being modified. Normally this point will be on the side of the building nearest the KUA's facilities and within 10 feet of the building corner. Overhead service conductors should not cross over buildings or adjacent property not owned by the customer.

3.5 Alternate Service Location

In cases where the customer requires a service location other than the one designated by the KUA representative, an alternate service location may be granted, at the sole discretion of the KUA representative, provided each of the following conditions are met:

- a. The customer provides a contribution-in-aid-of-construction (CIAC) for all additional expenses required by the KUA to provide and maintain service to the alternate service location. Ownership of facilities installed by the KUA shall remain with the KUA.
- b. The alternate service location does not conflict with existing or future construction of KUA

facilities.

- c. The alternate service location meets all codes, and applicable provisions of these Policies, Standards and Specifications.

3.6 Character of Service

Alternating current is supplied at a frequency of approximately sixty cycles. Standard nominal single-phase service secondary voltages are 120 volts, two wire or 120/240 volts, three wire. Standard nominal three-phase service secondary voltage is 120/240 volts, four wire for "delta" service. Where "Wye" service is provided, the standard nominal voltages are 120 volt, two wire or 120/208 volts, four wire. In some locations, other voltages may be available. The type of service provided shall be determined by the KUA representative based upon the character of the customer's load and the distribution system available in the area.

3.7 Service Voltage Standards

Insofar as possible, the KUA shall deliver voltage at the point of delivery which shall not exceed 5% above or below the nominal voltage for service rendered to customers whose principal consumption shall be for lighting and/or residential purposes and which shall not exceed 7½% above or below the nominal voltage for service rendered principally for industrial or power purposes.

Upon request, the KUA shall measure the voltage supplied to the customer at the point of delivery and take corrective action if the voltage is found to be consistently outside the specified range. The responsibility for providing voltage regulation more stringent than stated above shall rest with the customer.

3.8 Continuity of Service

The KUA will use reasonable diligence at all times to provide continuous service at the agreed nominal voltage but does not guarantee uninterrupted service nor shall the KUA be liable for complete or partial failure or interruption of service, or for fluctuations in voltage or for phase failure or reversal, resulting from causes beyond its control or through the ordinary negligence of its employees or agents. The KUA shall not be liable for any occurrence, act or omission caused directly or indirectly by strikes, labor troubles, accident, litigation, mechanical failure of equipment and/or facilities, repairs or adjustments to the

distribution system, interference by Federal, State or Municipal governments, acts of God or other causes beyond its control.

It shall be the customer's responsibility to provide and install, in compliance with the *National Electrical Code*®, any devices to prevent equipment and wiring damage due to excessive current, low voltage, loss of phase, phase reversal, etc.

3.9 Indemnity to KUA

After the electrical energy passes to the customer's side of the point of delivery, it becomes the property of the customer and the customer shall indemnify, hold harmless and defend the KUA from and against any and all liability, proceedings, suits, cost or expense for loss, damage or injury to persons or property, in any manner directly or indirectly connected with, or growing out of the supply and use or misuse or presence of electricity on the customer's side of the point of delivery.

3.10 Access to Premises

Duly authorized agents and employees of the KUA shall at all times have access to KUA facilities on the customer's premises for the purpose of installing, maintaining, inspecting and removing KUA property and shall have access to the premises during normal working hours for the purpose of reading meters and other purposes incident to performance under or termination of the KUA's agreement with the customer and in all such performance shall not be liable for trespass.

3.11 Easements

In accordance with the Utility Easement Requirements contained in Section 8 of this policy, the customer shall provide, grant or cause to be granted to the KUA, without cost to the KUA, all rights, easements, permits and privileges which, in the opinion of the KUA, are necessary for the rendering of service to the customer.

Limitation of Use

3.12 Resale of Service

Electric service received from the KUA shall be for the use of the customer and shall conform to the requirements of the General Rules and Regulations for Electric Service adopted by the KUA and shall not be resold.

3.13 Conversion to Master Metering Prohibited

When customers are currently separately served by the KUA at individual accounts, they may not terminate these individual accounts and receive service from the KUA collectively through a single meter unless the resulting combined service account is one which could be served by one meter under the provisions of Section 6.1.

3.14 Street Crossings

The Customer will not build or extend electric lines across or under a street, or other right-of-way in order to furnish service for adjacent property through one meter even through such adjacent property is owned by the Customer, unless written consent is obtained from the KUA. Consent may be given when such adjacent properties are operated as one integral unit, under the same name, for carrying on parts of the same business or same residence.

3.15 Unauthorized Use of Service

In case of any unauthorized remetering, sale, extension or other disposition of service, the customer's service is subject to discontinuance until such unauthorized remetering, sale, extension or other disposition of service is discontinued; and full payment is made of bills for service calculated on proper classifications and rate schedules; and reimbursement, in full, has been made to the KUA for all extra expenses incurred, including expenses for clerical work, testing, inspection and investigation.

Customer's Installation

3.16 Application for Electric Service

Application for electric service should be made with the KUA as soon as the decision is made to proceed with development which may be well in advance of the time when service is desired. Depending upon the scope of service requested, important aspects of the development must be communicated to the KUA representative. These include the exact location of the development, type and voltage of large motor loads, HVAC equipment proposed, mechanical and electrical plans and any special or unusual requirements.

The KUA will make every reasonable effort to reach a prompt and mutually satisfactory arrangement on the characteristics of the service to be provided.

3.17 Electrical Plans Required

The customer shall furnish the KUA with a description of the proposed electrical installation. **The customer**

should not proceed with any stages of the electrical design or construction until service voltage, service location and other service requirements have been established by the KUA representative. Contact with the KUA early in the project planning phase is essential for the engineering, material procurement and construction scheduling to provide service when needed.

3.18 **Customer's Installation**

The Customer's installation consists of and includes all wires, cutouts, switches and appliances and apparatus of every kind and nature used in connection with or forming a part of an installation for utilizing electric service for any purpose, (excepting meters and associated metering equipment), ordinarily located on the Customer's side of the "Point of Delivery," and including service entrance conductors, whether such installation is owned outright by the Customer or used by the Customer under lease or otherwise.

3.19 **Type and Maintenance**

All customer wiring, apparatus and electrical equipment shall be selected, installed and maintained in accordance with these Policies, Standards and Specifications, and in full compliance with all applicable local or state laws or policies, codes, governmental regulations, guidelines of local authorities, the *National Electrical Safety Code®* or the *National Electrical Code®* that may now exist or be promulgated in the future. The customer expressly agrees to utilize no apparatus or device which is not properly constructed, controlled and protected, or which may adversely affect service to others and the KUA reserves the right to discontinue or withhold service for such apparatus or device.

3.20 **Change in Customer's Installation**

When an existing service installation is repaired or modified, the electrical service shall be brought into compliance with the requirements of the applicable electrical codes. At a minimum, the customer shall be required to:

- a. Relocate meters from any inaccessible area to an accessible outdoor area.
- b. Replace self-contained A-base meter enclosures with socket type meter enclosures.
- c. Correct all clearance deficiencies.

3.21 **Addition to Customer's Installation**

The capacity of KUA electrical facilities to serve the customer is based on information furnished by the customer at the time of initial service design. No significant additions or changes shall be made to the customer's installation without first notifying the KUA representative. Failure to provide this information may adversely affect the quality of service to the customer and to other customers served from the same KUA facilities.

3.22 **Inspection of Customer's Installation**

Upon completion, all electrical installations or changes should be inspected by a competent authority to insure that wiring, grounding, fixtures and devices have been installed in accordance with the *National Electrical Code®* and such local rules as may be in effect. Where governmental inspection is required by local rules or ordinances, the KUA cannot render service until such inspection has been made and formal notice of approval has been received by the KUA from the inspecting authority. The KUA reserves the right to inspect the Customer's installation prior to rendering service and from time to time thereafter, but assumes no responsibility whatsoever for any portion thereof.

3.23 **Electric Generators**

When a customer owned electric generator is installed, it shall be installed in such a manner as to eliminate the possibility of operating in parallel with, or back-feeding into the KUA electrical system. A double throw double source main disconnect switch which disconnects the service equipment from the KUA's source before connecting it to the electric generator shall be used for this purpose. If an automatic transfer system is proposed for this purpose, the specific system shall be reviewed for approval by the KUA representative before it may be used. The KUA shall not connect its service to a customer's wiring where generators are used unless the wiring conforms to the KUA's specifications. These specifications are available on request.

KUA's Installation

3.24 **Protection of KUA's Property**

The customer shall properly protect the KUA's property on the customers' premises and shall permit no one but the KUA's agents, or persons authorized by law, to have access to KUA wiring, meters and apparatus.

3.25 **Damage to KUA's Property**

In the event of any loss or damage to the KUA's property caused by or arising out of carelessness, neglect or misuse by the Customer, the Customer shall reimburse the KUA for the cost of replacement or repairing such damage.

3.26 **Relocation of KUA Facilities**

When there is a change in the customer's operation or construction which, in the judgment of the KUA representative, makes the relocation of KUA facilities necessary, or if such relocation is requested by the customer, the KUA shall move such facilities, at the customer's expense, to a location which is acceptable to the KUA.

3.27 **Attachments to Poles**

The use of the KUA's poles, wires, towers, structures or other facilities for the purpose of fastening or supporting any radio or television aerials or other equipment, or any wires, fences, ropes, signs, banners, clotheslines, basketball backboards, placards, political posters or any advertising matter, or other things, not necessary to the supplying by the KUA of electric service to the community, or the locating of same in such proximity to the KUA's property or facilities as to cause, or be likely to cause, interference with the supply of electric service, or a dangerous condition in connection therewith is prohibited. The KUA shall have the right to order such items removed, or to remove such items and charge the violator for such removal. Removal of such unauthorized attachments may be made without notice and shall be without any liability for the removal or the manner of making such removal. The violator of these rules is liable for any damage resulting therefrom. The KUA prohibits any work on or access to its poles, manholes, vaults or pad mounted transformers without prior authorization.

3.28 **Connections to KUA's Facilities**

All connections of the customer's wiring to KUA wiring or facilities, all disconnects of service entrance conductors, all meter removals and installations and all breaking of KUA meter equipment seals shall be made only by KUA personnel. Connection or disconnection of the KUA's service by the customer or agent is prohibited. If done with the intent to injure or defraud, it is punishable by law and violators may be prosecuted.

3.29 **Interference with KUA's Facilities**

The customer shall not allow:

- a. Trees, vines or shrubs to interfere with the KUA's overhead conductors, service wires or the visual reading of or maintenance to the electric meter. Such interference may result in an injury to persons, or may cause the customer's service to be interrupted. In all cases, the customer should request the KUA to trim or remove trees and other growth near the KUA's adjacent overhead wires, and under no circumstances should the customer undertake this work himself, except around service cables when specifically authorized by and arranged with the KUA.
- b. The planting of ornamental shrubs or other growth which may hinder ventilation and maintenance of any padmount facilities. A minimum clearance is required around all padmount equipment. A distance of ten (10) feet shall be kept clear in front of all service doors and at least three (3) feet shall remain clear from the equipment pad on all other sides.
- c. The installation of any equipment adjacent to any metering or padmount facilities which may adversely affect the performance of or access to such facilities.

3.30 **Property Replats**

Property replats shall be treated as a new development or subdivision and shall follow this policy as set forth. Any adjustment to or removal of existing KUA shall be at the developer's expense. Any facility abandoned in place and rendered unusable shall be at the developer's expense.

3.31 **Business Hours**

The KUA normal business hours are Monday through Friday from 8:00 a.m. to 5:00 p.m. excluding holidays.

3.32 **Changes and Amendments**

The KUA reserves the right to change or amend these Policies, Standards and Specifications at any time for any reason and such changes or amendments shall become effective upon the date determined by the Board of Directors of the Kosrae Utilities Authority.

4. **ELECTRICAL SAFETY and CODE**

CLEARANCE

4.1 Safety Policy

It is the policy of the KUA to operate the distribution system with the highest degree of care and safety for the public and KUA employees. To help insure the safety needed for an electrical distribution system, the KUA adopts, and incorporates by reference, those standards prescribed in the most recent edition of the *National Electrical Safety Code*® as initial safety standards for distribution facility design, construction, maintenance and operation by the KUA.

4.2 Hazardous Conditions Prohibited

The KUA may refuse service to any new or altered installation or disconnect service without prior notice to any existing installation, which in the opinion of the KUA representative, constitutes a hazard to the public, to other customers or to KUA employees or when notified by an appropriate inspection authority to disconnect service.

4.3 Horizontal Clearance Standards

Minimum clearance between any building, antenna, chimney, sign, storage tank or other structure and any overhead distribution facility or electric pole of the KUA, shall be maintained in accordance with the provisions of the most current revision of the *National Electrical Safety Code*®.

4.4 Vertical Clearance Standards

Minimum clearance of electrical facilities over any alley, easement, parking lot, right-of-way, street, walkway, etc., shall be maintained in accordance with the provisions of the most current revision of the *National Electrical Safety Code*®.

4.5 Point of Attachment

It shall be the customer's responsibility to provide a suitable point of attachment for the KUA service drop. The point of attachment and the customer weatherhead shall be located such that the lowest point of sag of a new or replacement service drop shall be in accordance with the applicable minimum vertical clearance specified in Section 17.

4.6 Clearance Illustrations

Illustrations of typical electrical safety code clearances are shown in Section 17, Specifications. **These diagrams are a guide to commonly used data and are not intended to give all the information that may be needed for specific situations.** The current issue of the *National Electrical Safety Code*® and the

National Electrical Code® should be consulted and shall take precedence when in conflict with these illustrations.

4.7 Violation of Clearances

Any person or organization who proposes any change in the use of land or change in the grade of land or any other action which would result in a violation of the minimum clearances set forth in Section 4.3 or Section 4.4 shall give ninety (90) days prior notice of such proposed action to the KUA.

- a. Upon such notice, the KUA representative shall determine the feasibility of relocating to a suitable location such line, distribution facility and/or electric pole which is in conflict with the proposed action.
- b. Should it be determined by the representative that such relocation is feasible, the KUA shall perform the necessary relocation at the expense of the person or organization whose proposed action violates the minimum clearance requirement.

4.8 Location of Underground Utilities

Grading or excavation work should not be started until an underground facilities location has been completed. Digging into underground power lines can **result in severe injury or death** to the operator and others and can cause interruption of service to a wide area. Any person doing excavation work in a public right-of-way, utility easement or any other public place, shall call for the location of any underground electric facilities.

The KUA shall locate KUA electric facilities. Call 370-3799 or 370-3344.

4.9 Equipment Operator Warning

When operating equipment around overhead electric lines, the equipment shall be maintained at a minimum distance of ten (10) feet from electric lines. Contacting the line can **result in severe injury or death**.

4.10 Contact KUA for Assistance

If work is to be accomplished near an overhead electric line, contact the **KUA** for assistance in avoiding contact with energized facilities. If outages or clearances are needed to schedule work, 24 hours advance notice should be provided.

5. SERVICE LIMITATIONS

5.1 Distribution System Design

The KUA shall retain sole right to the design and specifications of the electric distribution system.

5.2 Overhead Service Limitation

In general, the KUA installs and maintains only one set of service drop conductors to the customer's premises. For overhead commercial installations, the Customer's service entrance is limited to three weatherheads with a maximum of four 500 kcmil conductors in each weatherhead. Where the load exceeds the capability of three weatherheads with 500 kcmil cables, other alternatives should be considered and a determination made by the KUA representative based upon the character of the customer's load and the distribution system available in the area.

5.3 Customer Load Characteristics

The characteristics of the customer's electrical load shall be such that the load balance, voltage fluctuation, power factor, generation of harmonics or any other factor does not adversely affect the operation of the KUA's electrical distribution system or the quality of service to other KUA customers. Extreme cases may require disconnection of the customer's service until corrective action is taken.

5.4 Three-Phase Service Provided

All requests for three-phase service shall be justified and approved by the KUA representative. Customers requesting three-phase service shall have enough three-phase load to assure annual revenues to provide an appropriate return. Nominal three-phase loads may be provided if a three-phase transformer station is already in place and in use.

5.5 Three-Phase Service Requirements

To meet the minimum requirements for three-phase service, a proposed customer should have a minimum of 20 KWD as diversified by the KUA and/or a three-phase motor larger than five (5) horsepower and existing distribution facilities shall be readily available to the customer's premises.

5.6 Large Motor Starting

As a protection to service and equipment, motors of ten (10) horsepower and larger shall have such characteristics or be equipped with a starter of such design that the instantaneous starting current requirement shall be limited to approximately 300% of

rated full-load current.

- a. By permission of the KUA representative, exceptions to this rule under certain conditions may be permitted. All requests for exception to this rule shall be made to the General Manager in writing with the following information:
 - Horsepower rating
 - Name plate voltage
 - Name plate full-load amps
 - Name plate locked rotor amps
 - Frequency of starting as a function of time
 - N.E.M.A. code letter
- b. For all three-phase motors, it is the customer's responsibility to provide protection against over voltage and under voltage conditions on all phases.

5.7 Power Factor Regulation

The customer should maintain the power factor at the point of delivery as near to unity as practicable. Power factor correction equipment shall be switched with the load in such a fashion as to prevent a leading power factor at all times. The KUA reserves the right to assess a monetary adjustment to any excess lagging power factor in accordance with applicable rate schedules.

6. METERING

6.1 Individual Metering Required

The KUA shall require individual electric metering for each separate occupancy unit of new commercial and residential buildings, provided, however that individual electric meters shall not be required:

- a. In those portions of a commercial building where the floor space dimensions or physical configuration of the units are subject to alteration, as evidenced by nonstructural element partition walls, unless the KUA determines that adequate provisions can be made to modify the metering to accurately reflect such alterations;
- b. For electricity used in central heating, ventilation and air conditioning systems, or electric backup service to storage heating and cooling systems;

c. For electricity used in specialized use housing accommodations such as hospitals, nursing homes, dormitories, motels, hotels and similar facilities;

d. For separate, specially designated areas for overnight occupancy, where permanent occupancy is not established;

e. Where individual metering is not required under Section 6.1 and master metering is used in lieu thereof, submetering may be used by the customer of record or the owner of such facility solely for the purpose of allocating the cost of the electricity billed by the KUA. Such allocated costs **shall not** include the cost of the submeters, distribution losses, administrative costs, profit or any other cost other than the cost billed by the KUA.

6.2 Number of Meters Installed

Only one meter for each rate and/or voltage class under which the customer receives service shall be installed and maintained by the KUA for each customer at each service location.

6.3 Meters are KUA Property

All meters, service drops, underground service laterals and other electrical facilities installed by the KUA upon the customer's premises for the purpose of delivering and measuring electrical energy to the customer shall continue to be the property of the KUA.

6.4 Location of Meters

The KUA will determine the location of and install and properly maintain at its own expense such standard meter or meters and metering equipment as may be necessary to measure the electric service used by the Customer. The Customer will keep the meter location clear of obstructions at all times in order that the meter may be read and the metering equipment may be maintained or replaced. **No wiring dependent upon the meter location shall be started until the meter location has been specified by the KUA representative.**

6.5 Setting and Removing Meters

No person but duly authorized agents of the KUA or persons authorized by law shall set or remove, turn on or turn off, or make any changes which will affect the accuracy of such meters. Connections to the KUA's electrical system are to be made only by its employees.

6.6 Tampering With Meters

Ownership of meters and metering equipment shall be with the KUA. Unauthorized connections to, or tampering with the KUA's meter or meters, or meter seals, or indications or evidence thereof, subjects the customer to immediate discontinuance of service, prosecution under the laws of the State of Kosrae, adjustment of prior bills for services rendered and reimbursement to the KUA for all extra expenses incurred on this account.

6.7 Meter Socket Provided by KUA

The KUA shall provide and maintain without cost to the customer, sufficient and proper facilities for the installation of meters and other apparatus at an easily accessible location on the premises and in accordance with these Policies, Standards and Specifications. Should the customer wish to provide and maintain these facilities, a list of approved meter sockets is available from the KUA.

6.8 Meter Socket Location

Except where designated meter rooms are available, all meters shall be installed outdoors in a location where they will not interfere with traffic, sidewalks, driveways or where they will not obstruct the opening of doors or windows and not in any location which may be considered hazardous or cause damage to the metering equipment. The customer shall keep the meter location clear of obstructions at all times in order that the meter may be read and the metering equipment may be maintained or replaced.

In designating the meter location, consideration should be given to any present or future building expansion or the installation of a deck, porch or other land use. **The service attachment and meter location should be established within ten (10) feet of the corner and on the side of the building nearest the KUA's secondary voltage facilities.**

6.9 Meter Socket Installation

Meter sockets shall be surface mounted (not flush mounted) plumb, securely fastened to the building wall and shall be installed so that the meter is located 5 - 6 feet above finished grade or permanent platform. At least three (3) feet of clear space shall be left in front of the meter for reading. At least two (2) feet of clear space measured from any part of the meter socket to all conduit, pipe, side wall, etc., shall be maintained for servicing.

6.10 Meter Rooms

Where the KUA has agreed to permit the use of meter rooms, the room shall be well lighted and shall be used exclusively for the housing of KUA electric meters and the customer's service equipment. Meter rooms shall not be used for storage or an other purpose. The meter room shall remain locked and the customer shall provide the KUA with keys necessary for access to meter rooms.

6.11 Meter Sockets Grouped

Where service is supplied to individual customers located in a structure designated for multiple occupancy, the individual outdoor meter sockets shall be grouped at a point nearest the service drop attachment and shall be as specified in Article 370 of the *National Electrical Code*®.

6.12 Meter Socket Specifications

All meter sockets, meter stacks and modular metering systems shall be manufactured in accordance with the latest revision of the following: ANSI C.12.7, ANSI/UL 50, ANSI/UL 414 and NEMA 250, as well as all other applicable codes and standards.

6.13 Non-Residential Installations

Meter sockets for commercial or industrial installation, except as specified below, shall be rated for a minimum of 200 amps continuous loading and shall be equipped with a lever operated jaw release bypass. All jaws, terminals and internal bus shall be rated 600 volt.

The KUA can supply self contained meters up to 200 amp continuous loading.

6.14 Nominal Commercial Loads

Meter sockets for nominal commercial loads consisting of single-phase 50 amp or less power requirements may be 100 amp non bypass sockets on the following installations:

- Tele-metering station
- Telephone pedestal
- Site lighting requirements (under 50 amp)

6.15 Meter Centers

When the customer elects to provide prewired meter centers, **the centers shall be approved by the KUA representative prior to installation by the customer.**

The customer shall be responsible for all maintenance, including parts and labor of prewired meter centers. Such equipment shall contain manual jaw release by-

pass socket blocks for all three-phase and nonresidential installations.

6.16 Meter Socket Identification

Each facility served by the KUA shall be identified so that the KUA can correctly associate the meter with the customer served.

6.17 Weatherhead CT Installation

Current transformers (CT) installed outdoors ahead of the customer's weatherhead shall be installed by the KUA and shall be securely mounted on a metal bracket with each CT solidly grounded.

- a. The customer shall provide a 1 inch metal raceway with pull wire from the current transformer enclosure to the meter socket. The raceway shall be used solely for the installation of CT secondaries. The raceway shall not exceed forty (40) feet in length from the CT enclosure to the meter socket. Conduit pull outlet bodies (LBs) shall not be used.
- b. The raceway shall provide for the effective grounding of the meter enclosure. When EMT conduit is installed, compression type fittings shall be used to assure a continuous grounding path. **The installation of set screw type fittings shall not be permitted.**
- c. The installation of PVC or other type of non-metallic conduit for CT secondary raceways shall not be permitted.

6.18 Current Transformer Cabinet

Current transformers not installed outdoors ahead of the customer's weatherhead shall be installed in an enclosure. The enclosure shall be either a metering cubicle in the switchgear, designated and U.L. approved for the purpose, or a CT cabinet supplied by the KUA. The enclosure shall be provided with a means of installing seals and/or locks by the KUA. No customer wiring or equipment shall be permitted in the CT enclosure except the customers' service conductors. The installation of CTs in the wireway of the customer's service equipment shall not be permitted.

6.19 Marking Conduits

The service entrance conduits entering the CT cabinet shall be marked either "Line" for conduits from the KUA source side or "Load" for conduits to the customer service equipment.

6.20 CT Cabinet Installation

Cabinet mounted current transformers shall be securely mounted by the KUA within the enclosure. The secondary terminal compartment of each CT shall be readily accessible and the nameplate data of each CT shall be visible without disturbing the customers' service conductors. The base of each CT shall be solidly grounded.

- a. The customer shall provide a 1 inch metal raceway with pull wire from the current transformer enclosure to the meter socket. The raceway shall be used solely for the installation of CT secondaries. The raceway shall not exceed forty (40) feet in length from the CT enclosure to the meter socket.
- b. The raceway shall provide for the effective grounding of the meter enclosure. When EMT conduit is installed, compression type fittings shall be used to assure a continuous grounding path. **The installation of set screw type fittings shall not be permitted.**
- c. The installation of PVC or other type of non-metallic conduit for CT secondary raceways shall not be permitted.

6.21 Security of Electric Service

The customer's service entrance shall be secured against unauthorized electrical connection between the point of attachment and the point of metering. When multiple services are tapped off of a common service entrance, such as in a wireway or switchgear, all removable covers shall be provided with a means for the installation of seals and/or locks by the KUA.

6.22 Residential Service Change

When an existing single family residential customer increases the service size, the service shall be brought into compliance with the applicable electrical codes and these Policies, Standards and Specifications. At a minimum, the customer shall be required to:

- a. Relocate meters from any inaccessible area to an accessible outdoor area.
- b. Replace self-contained A-base meter enclosures with socket type meter enclosures.
- c. Correct all clearance deficiencies.

6.23 Non-Residential Service Modification

When an existing service, other than to a single family residence, is repaired or modified and that repair or modification includes the replacement of the service entrance on the line side of the KUA's point of metering, the customer's metering installation shall be brought into compliance with the current code and these Policies, Standards and Specifications. At a minimum, the customer shall be required to:

- a. Relocate meters from any inaccessible area to an accessible outdoor area.
- b. Replace self-contained A-base meter enclosures with socket type meter enclosures.
- c. Correct all clearance deficiencies.

7. CONSTRUCTION SERVICE and TEMPORARY SERVICE

7.1 Requirements for Service

Construction service and Temporary service shall comply with all requirements applicable to permanent services, i.e., application for service, code compliance, inspection by local authorities, etc. In addition, the customer shall be required to provide a contribution-in-aid-of-construction (CIAC) for the installation and removal of any facilities necessary to provide the service. For an overhead service, this charge provides for the installation and removal of an overhead service and meter. For an underground service, this charge provides for connecting and disconnecting the customer's service cable to the KUA underground system and the installation and removal of the meter. This CIAC does not include the normal service connection fee for the service rendered. Ownership of facilities installed by the KUA shall remain with the KUA.

7.2 Limited Availability

Construction service and temporary service will be supplied only when the KUA has readily available capacity of lines, transformers, generating and other equipment for the service requested.

7.3 Limit to Use

The customer shall not energize any permanent electrical service to a facility under construction using the construction service power except for test purposes.

7.4 Overhead Service and Meter Support

Overhead service and meter supports shall be supplied by the customer in accordance with the specification in Section 17. The service support should be located no less than 15 feet and not more than 75 feet to the nearest overhead distribution pole.

7.5 Underground Meter Support

Standard construction service in an underground service area when existing underground primary and secondary facilities are available can be accomplished with a pedestal and meter socket illustrated in Section 17. The underground service lateral cable shall be installed by the customer to the KUA underground facility. An adequate length of service cable shall be available for KUA crews to install into the transformer for connection.

7.6 Other Service Available

Electrical service other than that stated above may be made available based upon the total actual cost of installing and removing such additional electrical equipment as is necessary to provide the requested service. An estimate of the cost, subject to adjustment or refund to reflect the actual cost to provide the service, is payable in advance to the KUA.

8. UTILITY EASEMENT, RIGHTS-OF-WAY and ACCESS REQUIREMENT

8.1 Easements Specified by KUA

Utility easements required to provide electric facilities shall be specified by the KUA and shown clearly on a drawing provided to the developer.

8.2 Agreement to Provide Easements

For any large or complex development, the developer shall provide a fully executed *Agreement to Provide Easement for Public Utilities* (see Section 16.1) prior to the installation of any facilities by the KUA.

8.3 Easements Required

The developer shall be responsible for providing all necessary utility easements to the KUA in proper form and at no cost to the KUA. Utility easements shall be received by the KUA prior to final acceptance of a conduit system or energizing the facilities. Failure to provide the KUA with proper utility easements will cause a delay in energizing the electric distribution system.

8.4 Easement Forms

Proper form for utility easements shall be as follows:

- a. The developer may provide the KUA with written, fully described easements on an approved KUA utility easement form or;
- b. The developer may provide the KUA with a written legal description of a raised seal surveyed centerline of electric distribution facilities. If this option is chosen, language in the utility easement description shall specify the easement width lying on each side of the surveyed centerline.

8.5 Combination Easement

Use of combination of storm water drainage and utility easement shall be accepted only with the approval of the KUA representative.

8.6 Maintenance of Grade

To comply with the *National Electrical Safety Code*® requirements, it is necessary that easements and rights-of-way grades cannot be changed by excavation or filling by more than 6 inches without prior written approval of all utilities affected. The full cost of any required alteration or relocation of utility lines shall be borne by the person or organization requesting the change.

8.7 Customer Facilities Within Easements

It is permissible to install fences and landscaping within easements, except where such landscaping and fences may stop access to utility facilities or conflict with utility equipment. Other permanent structures and buildings are not acceptable within the utility easement.

A minimum clearance is required around all vaults and padmount equipment. A distance of ten (10) feet shall be kept clear in front of all service doors and at least three (3) feet shall remain clear from the equipment pad on all other sides.

8.8 Clearance From Utility Facilities

Where the minimum clearances are not maintained and landscaping, fences or any other objects are located within the minimum clearance required in Section 8.7, the KUA shall not be responsible for any damage, loss or destruction which may occur during the course of access to utility equipment necessary for the installation, operation, maintenance, repair, removal and replacement of such equipment.

8.9 Landscaping Within Easement

Trees should be planted far enough away from padmount equipment so that when they reach maturity, overhanging branches will not obstruct a crane setting or removing equipment. Responsibility for upkeep and landscaping maintenance within an easement remains with the property owner.

9. EXTENSION OF ELECTRIC FACILITIES

9.1 General

Extension of the electrical distribution system from existing underground distribution facilities shall be underground. If an extension is from overhead facilities, the developer shall have a choice of overhead or underground distribution facilities, as allowed by law.

9.2 Early Notification and Coordination

In order for the KUA to provide service when required, it is necessary that the developer notify the KUA during the early stages of planning major projects. Close coordination is necessary throughout the planning and construction stages by the KUA representative, architect, consulting engineer, builder and subcontractors to avoid delays and additional expense. Particular attention shall be given to the scheduling of the construction of paved areas and the various subgrade installations of the service utilities. Failure by the developer to provide such notification and coordination shall result in the developer paying any additional costs incurred by the KUA.

9.3 Overhead System Extension

- a. The KUA may provide necessary overhead electric distribution facilities extensions and additions to serve new customers outside the area presently served by KUA, when the following conditions are met:
 - 1) The extension will serve permanent customers.
 - 2) The system will be built on public right-of-way and is capable of serving other customers.
 - 3) The revenue received represents a reasonable return on the KUA's investment in the system extension.
- b. Extensions to the distribution system to serve new customers will be planed, funded and constructed when the following funding requirements are met:
 - 1) KUA funded line extension projects must be

budgeted (and the funds available for use), within the Fiscal Year that materials and supplies will be purchased.

- 2) Grant funded line extension project funds must be secured by the KUA before any expenditures will be made. Line extensions must then be constructed according to the terms and restrictions of the grant.
- 3) Customer funded line extension projects may be requested and funded by customers benefiting from the new line if no other funding source is available. Customers requesting the extension will fund the total cost of construction, including materials, labor and overhead. The KUA will own, operate and maintain these lines and may further extend the line or provide service to new customers at its own choosing and without regard to previous customer contributions.

Note: Generally, the costs of line extension projects will not include the transformers, service drop and meter expenses. These expenses will be recovered at the time service is requested by individual customers.

9.4 Line Extension Priorities

It is anticipated that there will not be sufficient funding available to build line extensions for all customers requesting electrical service and that requests will be prioritized based on the following criteria:

- a. Customer funded line extensions shall receive the highest priority and line extension will be designed and constructed as soon as KUA labor and materials are available to schedule the construction.
- b. KUA and Grant funded line extension requests will be prioritized according to the following criteria:
 - 1) Number of customers benefiting from the line extension. (Number of customers per 1000 feet of line extension.) Preference will be given to line extensions benefiting the higher densities.
 - 2) Cost of the extension. (Cost per 1000 feet and cost per new customer.) Preference will be given to the least expensive cost per 1,000 feet and the lowest cost per new customer.
 - 3) Economic benefits, such as new businesses and enterprises that may open due to the

- availability of electric power.
- 4) Social factors, such as the need to relocate homes due to beach erosion, overcrowding and the desire to live close to farm lands.
 - 5) New projects initiated by Municipal and State government that would benefit other customers if electricity were made available.
 - 6) Other factors to consider:
 - Access to new line extension. (Road?)
 - Customers willing to clear right of way.
 - Easements signed and delivered to KUA
 - Land owner restrictions or limitations
 - Unusual or difficult construction requirement

9.5 KUA and Grant Funded Line Priorities

At least annually, the General Manager will provide cost estimates and criteria ranking for each proposed KUA and Grant funded line extension to the Board of Directors. Based upon funding availability, cost estimates and criteria ranking, the Board of Directors will determine which line extension will be budgeted and funded during the fiscal year or funding period.

9.6 Underground System Extension

When requested, the KUA shall offer underground electric distribution facilities extensions and additions, or the conversion of overhead electric distribution facilities, upon the execution of the Underground New Facilities Agreement and the payment of the required contribution-in-aid-of-construction (CIAC).

The CIAC to be paid to the KUA shall be calculated as the estimated cost to install underground electric distribution facilities for the proposed system extension, less the estimated cost to install overhead electric distribution facilities for the proposed system extension, plus the CIAC that would otherwise be due, if any, for the extension of overhead distribution facilities.

9.7 Clearing of Easements

Rights-of-way and Utility Easement initial clearing and tree trimming shall be performed by the developer as follows:

- a. Rights-of-way in platted and recorded subdivisions or developments shall be cleared in accordance with KUA specifications.
- b. Rights-of-way along unplatted roads or private roads shall be cleared to a width of twenty (20)

feet beyond the edge of payment on the roadside where overhead electric lines will be installed as determined by the KUA.

- c. In addition to rights-of-way clearing, the utility easements shall be cleared or trimmed of any and all tree limbs overhanging the easement adjacent to rights-of-way.

10. Reserved for Future Use

11. OVERHEAD CONSTRUCTION

General Information

11.1 Availability

Overhead construction shall be the standard distribution facilities available to all new developments within the KUA electric service territory, as allowed by law.

11.2 Agreements

The KUA agreements for providing electric service shall be with the property owner or a designated representative. Any such designation by the owner shall be delivered to the KUA in writing prior to negotiations with the KUA.

11.3 Location of Facilities

New electric distribution construction shall be located within road rights-of-way or utility easements adjacent to road rights-of-way at the discretion of the KUA representative.

11.4 Concrete Poles

If concrete poles or facilities other than standard wood pole construction are requested, the developer shall provide a CIAC for the total installed cost differential between concrete poles and wood poles normally designated for the job. Prepayment of the cost differential invoice is required prior to work order release.

11.5 Clearances

A five (5) foot separation shall be maintained between the above grade electrical facilities and driveways (paved or non-paved). Other clearances shall be maintained in accordance with the provisions of the most current revision of the *National Electrical Safety Code®*.

11.6 **Electronic File**

When available, the developer's engineering firm shall submit a computer file of the approved final site plan with all easements, to include but not limited to items in Sections 8.4a and 11.7. The file shall be in a format usable by the KUA.

Procedure for Obtaining Overhead Service

11.7 **Preliminary Plans**

Depending upon the size and scope of the proposed development, all or only portions of paragraphs 11.7 through 11.14 may be required.

The developer shall provide one (1) complete set of preliminary plans to the KUA at least twelve (12) weeks prior to the date electricity will be required. These plans shall include street profile plans, electrical and mechanical plans, grading plans, as well as the location and size of proposed water, surface storm drainage, sanitary facilities, typical road and drainage cross sections, the location of all other utilities and any requested or proposed three-phase service locations.

11.8 **Recorded Plat**

The developer shall submit two (2) "certified" copies of the recorded plat to the KUA.

11.9 **Site Plan**

The developer shall submit one (1) initial "Approved for Construction" site plan to the KUA.

11.10 **Letter of Intent**

The developer shall provide a completed *Letter of Intent* (see Section 16.4) and an *Agreement to Provide Easement for Public Utilities* (see Section 16.1) to the KUA.

11.11 **Final Plans**

At least four (4) weeks prior to the commencement of construction, the developer shall provide two (2) final site plans and one (1) complete set of final plans to the KUA.

11.12 **Site Plan Revisions**

Any site plan revisions shall VOID all previous facilities design proposed by the KUA representative. All site plan revisions shall be considered new work and shall follow the above procedure.

11.13 **Underground Service Lateral Option**

While an overhead service drop is normally provided

with overhead construction, in some instances it may be to the developer's advantage to install the secondary service underground.

11.14 **Underground Service Lateral**

For underground service laterals, the developer shall install the following:

- a. Trenching, backfilling, compaction of trenches and restoration of all concrete and asphalt surfaces and landscaping, if any, from the riser pole to the service location.
- b. For non-residential service, the developer shall provide and install the secondary conduit and conductors to include the pole riser, sized in accordance with *National Electrical Code*®. Adequate excess conductor length shall be left to provide future connection to the KUA transformers or secondary lines.
- c. For residential service, the developer shall provide and install the service conduit, according to specifications provided by the KUA, for use by the KUA for the installation of the service conductors. A Contribution-in-aid-of-construction shall also be paid to the KUA.

11.15 **Service Drop Support**

For all new or remodeled buildings with overhead service, the customer shall install a service bracket or other deadend device of adequate strength to support the KUA's service drop on the building. On buildings of masonry construction, the deadend device is to be mounted by means of an eye bolt set in the structure.

12. UNDERGROUND CONSTRUCTION

General Information

12.1 **Availability**

Underground construction shall be available for all new developments within the KUA electric service territory.

12.2 **Agreements**

The KUA responsibility and agreements for providing electric service shall be with the property owner or a designated representative. Any such designation by the owner shall be delivered to the KUA in writing prior to any negotiations with the KUA.

12.3 Location of Facilities

New electric distribution construction shall be located within road rights-of-way or utility easements adjacent to road rights-of-way at the discretion of the KUA representative.

- a. All required above grade or at grade electrical apparatus (i.e., Padmount Transformers, Secondary Pedestals, Pull-boxes, etc.) shall be placed as specified in the KUA construction plan. Exceptions requested by the developer shall be at the discretion of and with approval from the KUA representative.
- b. The developer shall provide protection for KUA padmount equipment installed adjacent to parking lots or driveways. Guard structures of 4 inch galvanized pipe, 8 feet in length filled with concrete shall be spaced a maximum of 3 feet apart as specified by the to accommodate transformer enclosure doors. The pipe shall be mounted 4 feet below grade with 4 feet extending above grade. The above grade portion of the pipe shall be painted yellow.

12.4 Developer Installs Conduit System

Developers shall supply and install all conduits and install other facilities within the proposed development. In addition, developers may also be required to install conduits on property adjacent to the proposed development. The conduit system shall be installed in accordance with the specifications for conduit installation. **Conduit shall be grey PVC, schedule 40, heavy wall rigid, except as otherwise specified.** See Section 14.1.

12.5 Conduit System Components

The conduit system includes the conduit, conduit fittings, conduit sweeps, pullboxes, manholes, marking tape, risers, stub-outs, transformer pads, switchgear pads, fused enclosure pads and/or any other device or material deemed necessary for the electrical distribution conduit system.

12.6 Construction Plans Provided

Conduit installation shall be in accordance with construction plans provided by the KUA. Any deviation from these plans shall be approved by the KUA representative prior to installation and shall be shown on an "AS BUILT" record drawings. The

KUA shall not proceed with additional work until "AS BUILT" record drawings are received. See Section 12.29.

12.7 Conflicts in Specifications

If any conflict should arise between the specifications contained in these Policies, Standards and Specifications and any specific construction plan provided by the KUA, the construction plan shall supersede these specifications for that specific construction plan.

12.8 Construction Practices

All work conducted in the installation of the conduit system shall at all times conform to good construction practice. Industry standards and/or manufacturers' recommendations shall be followed. Maximum care shall be used in the protection of underground and above ground property, structures or facilities whether indicated on the construction plans or not. All notes and directives on applicable specification sheets shall be met and are an integral part of this policy.

12.9 Conduit System Ownership

The KUA shall in no way be liable for any damage or other claims resulting from the installation of conduit by the developer or contractor. Conduit system ownership shall not be vested in the KUA until final acceptance by the KUA. Acceptance by the KUA of any conduit system installed by the developer/contractor shall be after all requirements of this policy have been met and the cable installed and energized.

12.10 Coordination of Installation

The developer and contractor shall remain in close contact with the KUA throughout construction to coordinate final installation schedules.

12.11 Installation of Utility Facilities

The installation of facilities by KUA construction crews shall be subject to the current construction schedule. The developer will be notified of the scheduled installation date.

Procedure for Obtaining Underground Service

12.12 Preliminary Plans

Depending upon the size and scope of the proposed development, all or portions of paragraphs 12.12 through 12.54 may be required.

The developer shall provide one (1) complete set of preliminary plans and other documents set forth herein, to the KUA at least twelve (12) weeks prior to the date electricity will be required. These plans shall include street profile plans, electrical and mechanical plans, grading plans, as well as the location and size of proposed water, surface storm drainage, sanitary facilities, typical road and drainage cross sections, the location of all other utilities and any requested or proposed three-phase service locations.

12.13 Recorded Plat

The developer shall submit two (2) "certified" copies of the recorded plat to the KUA.

12.14 Site Plan

The developer shall provide one (1) initial "Approved for Construction" site plan to the KUA representative.

12.15 Letter of Intent

The developer shall submit a completed *Letter of Intent* (see Section 16.5) and *Agreement to Provide Easement* (see Section 16.1) to the KUA.

12.16 Final Plans

At least four (4) weeks prior to commencement of construction, the developer shall submit two (2) final site plans and one (1) complete set of final plans to the KUA.

12.17 Underground System Design

The KUA shall complete the final design of the underground system and provide one (1) copy of the final design to the developer and one (1) copy to the developer's engineer.

- a. The developer shall be responsible for the installation of the electric distribution conduit system adhering to the KUA's design and these Policies, Standards and Specifications.
- b. Installations by the developer creating noncompliance with these policies and/or applicable electrical codes shall be removed, reconstructed or relocated as necessary at the sole expense of the developer.
- c. Transformer pads shall be placed as specified to be accessible from the street without obstruction and shall not be placed over any underground non-electric utility.

- d. The conduit system shall not pass under any form of structure.

12.18 Site Plan Revisions

Any site plan revisions shall VOID all previous facilities design proposed by the KUA. All site plan revisions shall be considered new work and shall follow the above procedure.

12.19 Notice of Construction Schedule

At least one week prior to conduit system installation, the developer shall notify the KUA of the contractor selected to install the conduit system and the date construction is scheduled to begin. This notice shall be in writing and shall include the name of the firm, the contact person, address and telephone number. A pre-construction conference shall be conducted as soon as practical after contractor selection to finalize project requirements and resolve unanswered issues. The developer, contractor and KUA representative shall attend with additional invitees as required.

12.20 Notice of Conduit Installation

Additional notice shall be given forty-eight (48) hours before actual conduit construction commences and the KUA kept apprised of the actual construction schedules if delays are encountered or changes from normal working hours are necessary.

12.21 Materials Inspection

The KUA representative shall inspect all materials PRIOR to conduit installation but such inspection shall not relieve the developer from any additional responsibility set forth herein.

12.22 Installation Inspection

Conduit installation may commence with the KUA representative performing regular inspections of the construction and installation of the conduit system but such inspections shall not relieve the developer from any responsibility set forth herein.

The KUA reserves the right to require the conduit ditches to be left open for inspection. If the ditches are backfilled prior to inspection, then the KUA may withhold electric service until the conduits are excavated by the developer and the inspection requirement has been satisfied.

12.23 Final Inspection

The final conduit system inspection shall be performed

by the KUA representative and only after the following items have been completed:

- ALL lot easements and Rights-of-Ways are at final grade.
- ALL lot corners have been located and flagged with appropriate lot numbers.
- ALL conduit work is complete.

12.24 **Rejection of the Conduit System**

The KUA reserves the right to deny acceptance of any conduit system that is damaged and/or does not meet the minimum requirements of this specification. A conduit system shall not be accepted until all the provisions of this policy have been met. When a conduit system is rejected for any reason, the developer shall be notified in writing (see Section 16.6). All repairs to the conduit system shall be performed by the developer or the developer's contractor. Until the conduit system is corrected, the KUA shall not proceed with any construction toward completion of the distribution system.

12.25 **Misplacement of the Conduit System**

If any facilities are installed that do not conform to final lot layout, or result in conflict with future construction, the installation shall be considered a misplacement of the conduit system. All relocation, reconstruction or removal of facilities shall be the responsibility of the developer.

The relocation of the electric facilities due to placement out of the easement and/or off the original designed lot corners shall be the responsibility of the developer.

12.26 **Final Grade**

Developers shall be responsible for providing final grade before facilities are installed.

If any changes to final grade are made after the installation of facilities, all costs for relocation and/or rework (including raising and lowering facilities) shall be performed by or paid by the developer, at the KUA's option.

12.27 **Conduit System Guarantee**

All portions of the electrical conduit system shall be fully guaranteed against defects or improper workmanship for a period of one (1) year from acceptance by the KUA. During this time, repairs may be made by the KUA at the developer's expense, or by the developer at no cost to the KUA, at the KUA's

option.

The developer warrants the accuracy of the "**AS BUILT**" record drawings and shall re-install any conflict discovered between the "**AS BUILT**" record drawings and the actual location. See Sections 12.29.

12.28 **Dedication of Conduit System**

Upon completion of the conduit system and passing final inspection, the developer shall submit a completed *CERTIFICATE OF DEDICATION AND WARRANTY* (see Section 16.7) of the conduit system to the KUA before work to install facilities in the conduit system may proceed.

12.29 **AS BUILT Record Drawing**

An "**AS BUILT**" record drawing of the conduit system shall show the complete visual representation of the exact location of all facilities installed for use by the KUA. The visual shall be in the form of a construction drawing with construction changes to the initial design marked in red.

- a. The visual shall include all dimensions necessary to locate a facility. Measurements shall be from a permanent, above ground facility to the KUA's facility or a point directly above the KUA's buried facilities. All stub-ups, pads, secondary pedestals, switch gear and pullboxes, etc., shall be indicated by accurate dimensions.
- b. For underground facilities, depth below final grade shall be shown. The representative shall identify the locations where depth below grade is required.
- c. Location dimensions shall be indicated as necessary to accurately define the conduit run, all terminations and any deflection, either vertically or horizontally.

12.30 **Electronic File**

When available, the developer's engineering firm shall submit a computer file, in a format usable to the KUA, showing approved final lot layout with all easements to include but not limited to items in Sections 8.4a and 12.12.

12.31 **Utility Easements**

The developer shall submit Utility Easements in a form acceptable to the KUA, prior to receiving electric

service at the development. See Section 8.

12.32 Requirements for Installation

This policy contains the minimum requirements for the installation of an underground electric distribution system and in no way restricts the KUA from requiring more stringent specifications when conditions warrant.

12.33 Final Development Closeout Review

At least ten (10) days prior to the need for any electric service, the developer shall contact the KUA's representative for a final development closeout review. During that ten day period the KUA shall hold a review meeting with the developer to receive and review all required submittals.

12.34 Energizing Electric System

No electric distribution system shall be energized until all provisions and conditions of this policy have been met by the developer and/or contractor and all submittals received by the KUA.

12.35 Maintenance of Service Lateral

Service lateral conductors and equipment installed by the KUA shall be maintained by the KUA. Service Lateral equipment installed by the customer shall be maintained by the customer.

Specifications for Conduit Installation

12.36 Conduit System Installation

The developer shall furnish all labor, equipment and materials and perform all necessary operations in connection with the installation of a complete electric distribution conduit system, ready for use. Work shall be in accordance with these specifications, the applicable plans and all other terms and conditions of this policy, either specific or implied. The work is to include all land restoration and compaction necessary to obtain a stable final grade condition.

- a. For padmount transformer installation, the developer shall install the trenching, backfilling, compaction of underground primary and secondary trenches and restoration of all concrete and asphalt surfaces and landscaping, if any, to each pad and installation of all primary and secondary conduits up into the pad. Pads shall be supplied by the KUA and installed by the developer.

- b. For vault system installation, the developer shall install the trenching, backfilling and compaction of underground primary and secondary trenches, restoration of all concrete and asphalt surfaces and landscaping, if any, to the vault and installation of all primary and secondary conduits up into the vault.
- c. The KUA shall install all primary cable and primary cable terminations, primary switching and protection equipment, transformer(s), connection of customer secondary cable in the padmount transformer or vault and metering equipment to include meters, current transformers and current transformer meter cable.

12.37 Conduit Sizes

Conduit sizes shall be as follows, unless otherwise specified on plans by the KUA:

See Section 14 for Material Specifications

PRIMARY (3-Phase)	2.0 inch or larger and/or multiple runs
PRIMARY (1-Phase)	2.0 inch
SECONDARY	2.5 inch or larger
STREET LIGHTING	1.0 inch
SERVICE (1-Phase)	2.0 inch or larger
SERVICE (3-Phase)	4.0 inch or larger for KUA owned conductors.
SERVICE (3-Phase)	Sized by the owner's engineer for customer owned conductors.

12.38 Elbow Sweeps

Elbow sweeps for underground primary shall be rigid galvanized steel (RGS) and sweeps for service may be Schedule 40 PVC. Sweeps shall have the following radius.

2.0" Primary	36" Radius RGS
4.0" Primary	36" Radius RGS
2.5" Secondary	30" Radius PVC
1.0" Street Lighting	24" Radius PVC
2.0" Service	24" Radius PVC
4.0" Service	36" Radius PVC

12.39 Conduit Installation Depth

All conduit shall be installed at the following minimum depths, measured from final grade to the top of conduit:

PRIMARY	36 Inches
SECONDARY	30 Inches
STREET LIGHTING	24 Inches
SERVICE LATERALS	24 Inches

larger than 2 inches in diameter and foreign material such as bricks, concrete, roots, bottles, cans, etc. Backfill shall be tamped in one (1) foot increments to insure that later settling will not occur in the trench.

EXCEPT ALL CONDUIT in Public Right-of-Way or ingress-egress easements shall be 36" below final grade, measured from final grade to top of conduit.

12.40 Separation - Parallel Utilities

Where electrical conduits are installed parallel with other utilities, a minimum of three (3) feet horizontal separation and one (1) foot vertical separation shall be maintained between electric conduits and ALL OTHER UTILITIES.

12.41 Separation - Crossing Utilities

Where electrical conduits cross other utilities, a minimum of one (1) foot vertical separation shall be maintained between electric conduits and ALL OTHER UTILITIES.

12.42 Separation - Same Trench

ALL electrical conduits installed parallel in the same trench shall have a 3" minimum separation measured between the conduits outside diameter. See Section 17.

12.43 Clearance from Above Grade Facilities

A minimum of five (5) foot clearance shall be maintained between the above grade facilities and driveways (paved or non-paved).

12.44 Placement of Equipment

Above ground electrical equipment shall not be installed directly above any pipe, conduit, wire or other utilities.

12.45 Construction Under Roadway

Trench construction and backfill procedure under present and future pavement areas including roads shall be in conformance local codes and specifications for road construction. Density tests are not a requirement unless the KUA deems it necessary if, in its opinion, a reasonable effort to obtain suitable compactions is not being made, or is required by another authorized agency.

- a. Trenches shall be backfilled in such a manner that the conduit remains in a straight line within the trench.
- b. Backfill shall be clean material free from rocks

12.46 PVC Conduit Connection

When installing PVC conduit, cleaner and solvent cement shall be applied to each end before connection.

12.47 Conduit Ends

Conduits shall have the edges chamfered by a blade to eliminate sharp edges. The open ends of all conduits except the customers' service stub-outs or stub-outs for future conduit extension shall be taped with duct tape to prevent the entrance of all foreign matter. The customers' service stub-outs or stub-outs for future conduit extension shall be covered with a solvent cemented Schedule 20 PVC cap on each end. See Section 14.1e.

12.48 Conduit Bends

PVC conduit shall be installed straight. Where bends in the conduit run are specified by the KUA, factory sweeps shall be used as specified by the KUA.

12.49 Conduit Terminations

All conduits shall be terminated in accordance with KUA Construction Standards unless otherwise noted on plans.

12.50 Placement of Conduit Terminations

Placement of conduit terminations for future KUA facilities (i.e. transformers, pedestals, pullboxes, manholes, switches, etc.) shall be in accordance with plans provided by the KUA.

12.51 Pullbox Installation

Pullbox stub-outs shall have mitered belled flared ends installed. Pullbox knock-outs shall be mitered. Pullbox tops or covers shall be installed four (4) inches above final grade when installed except in driveways and parking lots where they will be installed to meet the final pavement.

12.52 Underground Warning Tape

Printed underground warning tape (see Section 14.3) shall be installed at a depth of 12 inches below final grade, DIRECTLY OVER THE CONDUIT during the backfilling operation, continuously throughout all trenches containing electric line conduits.

12.53 Conduit for Pole Riser

Twenty-five (25) feet of rigid galvanized steel (RGS) conduit of the same size as each conduit run shall be provided by the developer at termination poles for risers. One ten (10) foot length shall be installed by the developer from the conduit run sweep, up the pole. The second ten (10) foot length and the five (5) foot length, each with threaded couplings, shall be provided to the KUA for future installation. See Section 14.1f.

12.54 Clear Conduit and Pull String

Each conduit shall be blown clear and nylon twine (see Section 14.2) shall be blown into all runs of conduit except service stub-outs and tied to the conduit at each end. The twine shall be taped to the conduit and the conduit end opening shall then be taped over with duct tape. See Section 12.47.

13. ENCASED DUCT BANK and VAULT

13.1 Encased Duct Bank

When required, specifications for each concrete encased duct bank shall be issued by the KUA.

Transformer Vault

13.2 Applicability

Transformer vaults may be required when the diversified customer demand exceeds 500 KVA, three-phase or 167 KVA, single-phase or when underground service is to be provided and a padmount transformer is not practical, as determined by the KUA.

13.3 Vault Specifications

Transformer vaults shall be designed and constructed in accordance with the latest edition of the *National Electrical Code®*, and specifications issued by the KUA. Coordination between the developer's Architect/Engineer and the KUA during the early building design phase is essential to insure the adequacy of the vault design and to minimize design and/or construction changes.

13.4 Vault Location

Transformer vaults shall be located at ground level and sized by the KUA to allow for installation, maintenance and replacement of KUA equipment and transformers. Transformer vaults shall be constructed and maintained to provide a dry environment with sufficient filtered ventilation for proper transformer cooling.

13.5 Specifications Issued

When required, specifications for each enclosed transformer vault shall be issued by the KUA.

14. MATERIALS

14.1 Conduit Materials

Conduit shall be polyvinyl chloride (PVC), or rigid galvanized steel (RGS) as specified. Only conduit manufactured by approved suppliers and approved by the KUA may be used. Contact the KUA for an approved material list.

- a. PVC conduits shall be grey Schedule 40, heavy wall rigid, in twenty (20) foot lengths with factory belled couplings. EXCEPT 1" Schedule 40 conduit for KUA Street Lighting may be in ten (10) foot lengths.
- b. Adapters (from PVC to metal) shall be PVC.
- c. Ninety degree sweeps for underground primary shall be RGS, shall have a 36" radius and shall be factory made. See Section 12.38.
- d. Ninety degree sweeps for service stub-outs may be PVC, shall have a minimum 24" radius for 2 inch conduit and 36" radius for 4 inch conduit and shall be factory made. See Section 12.38.
- e. All service stub-outs shall be solvent cemented with a Schedule 20 PVC cap on the customer end. The KUA end shall be taped with duct tape. See Section 12.47.
- f. Rigid galvanized steel conduit for pole risers shall be furnished by the developer or contractor for every run of conduit installed up the pole. Conduit shall be supplied in two ten (10) foot lengths and one five (5) foot length each with one galvanized coupling attached. See Section 12.53.
- g. Factory flared bell ends shall be stubbed into pullboxes and mitered. See Section 12.51.

14.2 Nylon Twine

Nylon twine shall be a minimum #18 size, twisted with a 200 pound recommended working load.

14.3 **Underground Warning Tape**

Printed underground warning tape shall have the wording "CAUTION BURIED ELECTRIC LINE" continuously in black lettering on a red background. Tape shall be three (3) or six (6) inches in width and 4 mil polyethylene. The KUA shall furnish the underground warning tape which shall be installed by the developer as directed by the representative. See Section 12.52.

15. **SYSTEM RELOCATION and CONVERSION**

Relocation of Existing Facilities

15.1 **Customer Request**

When relocation of existing KUA distribution facilities in the public right-of-way is requested to accommodate a new and permanent customer, generally, the KUA will relocate the facilities, if practical.

15.2 **Maintain Safety Standards**

The customer shall be required to provide a CIAC for all KUA non-betterment costs when KUA facilities shall be relocated to **maintain industry safety standards and clearance requirements** due to conflicts created by customer action. Ownership of facilities installed or relocated by the KUA shall remain with the KUA.

15.3 **Early Notification**

The KUA shall be notified and requests shall be submitted with sufficient time for the KUA representative to investigate, design, schedule and construct the relocation.

15.4 **Contribution Required**

When the requirements of Section 15.1 are not met, all relocations of existing overhead and underground facilities and equipment requested shall be accomplished at the expense of the person or organization requesting the relocation. The requestor shall be required to provide a contribution-in-aid-of-construction (CIAC) for all KUA non-betterment costs. The requestor shall also be required to provide all necessary easements and rights-of-way without cost to the KUA. Ownership of facilities installed or relocated by the KUA shall remain with the KUA.

15.5 **Basis for Contribution**

Reimbursement to the KUA for expenses associated with relocation work shall be based on a "flat fee" or

"time and material."

15.6 **Payment of Estimated Cost**

For work performed on a "time and material" contract, the requestor shall have paid to the KUA the full amount of the estimated cost to complete the relocation prior to scheduling the construction. Upon completion of the relocation by the construction crews, the requestor shall be either billed for any additional costs incurred over and above the estimate, or shall be reimbursed the difference between the estimate and the actual cost, whichever may be applicable.

15.7 **Cost of Betterment Excluded**

Any substantial betterment performed by the KUA at the time of a relocation, but not a part of the relocation request, shall not be billed to the requestor.

Conversion of Residential Overhead to Underground

15.8 **Applicability**

The KUA shall consider requests from homeowners in residential areas with existing overhead electric distribution to place those distribution facilities underground.

15.9 **Area to be Converted**

The area to be converted shall be deemed adequate in size by and at the sole discretion of the KUA. Usually, a full block will be considered adequate.

15.10 **Agreement of All Property Owners**

Property owners in the area of consideration should choose one individual with the power of attorney to act as spokesperson and should submit a written request to the KUA. The request should list the addresses with signatures of property owners in the area to be considered for conversion. Every property owner shall agree to the conversion; otherwise, the project shall not be considered by the KUA.

15.11 **Presentation of Offer**

The KUA representative shall prepare the necessary easements, plans and estimate of the conversion cost. This information shall be presented to the spokesperson for the homeowners. The conversion offer shall be valid for 90 days and at the expiration of such time the offer shall expire.

15.12 **Conversion of Service Entrance**

Each homeowner shall be responsible for converting their service entrance from overhead to underground

and obtaining proper permits and inspections from the appropriate authority. The homeowner shall supply and install the trenching, conduit and trench backfilling between the meter and the property line, as specified by the KUA. The KUA shall install new underground service cable within the conduit from the distribution system to the meter. The KUA shall remove the existing overhead service conductor.

15.13 Removal of Facilities

The homeowner shall be responsible for removing the overhead service mast. The poles and overhead primary distribution shall be removed by the KUA when all homeowners are converted to the underground system, if the facilities are no longer required for utility use. The homeowners shall assume all costs incurred in replacing fences, shrubs, sod, trees and other landscaping items and the permanent repair of any pavement which may be disrupted during the conversion.

15.14 Contribution Required

Reimbursement to the KUA for conversion shall follow the "time and material" procedure stated in Section 15.6.

15.15 Other Affected Utilities

This policy does not guarantee that other utility facilities, such as telephone or CATV lines, which might be attached to KUA poles, will be placed underground. These utilities should be contacted individually.

Conversion of Overhead Service to Underground

15.16 Applicability

Conversion of a residential individual service drop from overhead to underground shall be permitted by the KUA.

15.17 Responsibilities for Conversion

The homeowner's contractor shall provide and install the trenching, conduit (as specified by the KUA representative) and trench backfilling between the service location and the riser pole. The contractor shall supply and install the rigid galvanized steel (RGS) conduit at the meter location and shall provide two ten (10) foot lengths of RGS conduit at termination poles for risers. The KUA crew will assist the customer in installing the conduit up the pole.

The KUA shall install and connect the new

underground service cable and shall remove the overhead service wires. The homeowner shall be responsible for the removal of the overhead service mast at the home. The homeowner shall also assume all costs incurred in replacing fences, sod, trees, shrubs and other landscaping items.

15.18 Contribution-In-Aid-of-Construction

Reimbursement to the KUA for expenses associated with conversion work shall be based on a flat fee.

15.19 Conformance to Specifications

All installations shall conform to the specifications of the KUA representative and the permitting and inspection requirements of the appropriate inspection authority.

16. AGREEMENTS, FORMS, LETTERS and PROCESS SUMMARIES

The following commonly used agreements, forms and letters to document the requests, responsibilities and understandings of the parties are included as an integral part of this policy manual.

If you have any questions concerning the attached documents, please contact the KUA.

AGREEMENT TO PROVIDE EASEMENT FOR PUBLIC UTILITIES

KNOW ALL MEN BY THESE PRESENTS, that the undersigned, do(es) hereby agree to provide necessary public utility easements over, under, or through property commonly known as:

and more fully described as:

in favor of the Kosrae Utilities Authority (hereinafter KUA), for the purpose of providing necessary public utilities.

The undersigned has designated easements for the placement of public utilities as more particularly shown on Exhibit "A" attached hereto and made a part thereof and has agreed that until such time as properly described easements are conveyed, the KUA is hereby authorized to install or have installed any facilities necessary to provide electric service or other public utilities and the undersigned does recognize the necessity of said easements for the efficient operation of the utility and for the benefit of the property to be served. Further, it is agreed that the aforementioned public utility easements shall be provided without cost to the KUA, within one hundred and twenty (120) days from the date of this Agreement and in accordance with applicable sections of the KUA, Policies, Standards and Specifications for Electric Service to Residential and Commercial Developments.

This instrument shall be rendered null and void and of no further effect at such time as the required easements, duly executed by the undersigned, are recorded in the Public Records. Failure on the part of the undersigned, or anyone acting by or through the undersigned, to convey public utility easements contemplated by this instrument, shall be grounds for the future denial of electric service or other public utility.

The agreements, understandings and expressions contained herein shall be binding upon the undersigned, its successors, assigns, administrators, trustees and grantees.

IN WITNESS WHEREOF, this Agreement has been executed this ____ day of _____, 19____.

WITNESS

OWNER

WITNESS

OWNER

STATE OF

Before me, the undersigned authority, personally appeared _____ and _____ to me known and known to me to be the person(s) who executed the foregoing instrument and they each and severally acknowledged to and before me that they executed the same freely and voluntarily for the purposes therein expressed.

Witness my hand and official seal at _____ on this, the _____ day
of _____, 19 ____.

Notary Public

My Commission Expires:

EASEMENT FORM (Individual)

This instrument prepared by:

Project No. _____

Municipality _____, Section _____, Parcel No. _____, Cadastral Plat

The undersigned, owner(s) of the premises below, in consideration of the payment of \$1.00 and other good and valuable consideration, the adequacy and receipt of which is hereby acknowledged, grant and give to the Kosrae Utilities Authority, PO Box KUA, Tofol, Kosrae State, FM 96944 (hereinafter KUA), its licensees, agents, successors and assigns an easement forever for the construction, operation and maintenance of utility facilities and right to reconstruct, improve, add to, enlarge, change the type, as well as, the size of and remove such facilities or any of them over, across, under and upon the property described as follows:

together with the right to permit any other person, firm or corporation to attach wires to any facilities hereunder within the easement and to operate the same for communications purposes with the right of ingress and egress to said premises at all times, to clear the land and keep it cleared of all trees, undergrowth or other obstructions within the easement area, to trim and cut and keep trimmed and cut all dead, weak, leaning or dangerous trees or limbs outside of the easement area which might interfere with or fall upon the lines or systems of communications or power transmission or distribution and further grants, to the fullest extent the undersigned has the power to grant, if at all, the rights hereinabove granted on the land heretofore described, over, along, under and across the roads, street or highways adjoining or through said property.

IN WITNESS WHEREOF, the undersigned has (have) signed and sealed this agreement on this _____ day of _____, 19 _____.

Signed, sealed and delivered in the presence of:

(WITNESS)

(SIGNATURE)

(WITNESS)

(WITNESS)

(SIGNATURE)

(WITNESS)

STATE OF

Before me, the undersigned authority, personally appeared _____ and _____ to me known and known to me to be the person(s) who executed the foregoing instrument and they each and severally acknowledged to and before me that they executed the same freely and voluntarily for the purposes therein expressed.

Witness my hand and official seal at _____ on this, the _____ day
of _____, 19 ____.

Notary Public

My Commission Expires:

16.3

EASEMENT (Corporate)

This instrument prepared by:

Project No. _____

Municipality _____, Section _____, Parcel No. _____, Cadastral Plat

The undersigned, owner(s) of the premises below, in consideration of the payment of \$1.00 and other good and valuable consideration, the adequacy and receipt of which is hereby acknowledged, grant and give to the Kosrae Utilities Authority, PO Box KUA, Tofol, Kosrae State, FM 96944 (herinafter KUA), its licensees, agents, successors and assigns an easement forever for the construction, operation and maintenance of utility facilities and right to reconstruct, improve, add to, enlarge, change the type, as well as, the size of and remove such facilities or any of them over, across, under and upon the property described as follows:

together with the right to permit any other person, firm or corporation to attach wires to any facilities hereunder within the easement and to operate the same for communications purposes with the right of ingress and egress to said premises at all times, to clear the land and keep it cleared of all trees, undergrowth or other obstructions within the easement area, to trim and cut and keep trimmed and cut all dead, weak, leaning or dangerous trees or limbs outside of the easement area which might interfere with or fall upon the lines or systems of communications or power transmission or distribution and further grants, to the fullest extent the undersigned has the power to grant, if at all, the rights hereinabove granted on the land heretofore described, over, along, under and across the roads, street or highways adjoining or through said property.

IN WITNESS WHEREOF, the undersigned has (have) signed and sealed this agreement on this

day of _____, 19 ____.

Signed, sealed and delivered in the presence of:

By:
(SIGNATURE)

(WITNESS)

(WITNESS)

Attest:
(SIGNATURE)

(WITNESS)

(WITNESS)

PLACE CORPORATE SEAL

STATE OF

Before me, the undersigned authority, personally appeared _____ and _____ to me known and known to me to be the person(s) who executed the foregoing instrument and they each and severally acknowledged to and before me that they executed the same freely and voluntarily for the purposes therein expressed.

Witness my hand and official seal at _____ on this, the _____ day
of _____, 19 ____.

Notary Public

My Commission Expires:

16.4

LETTER OF INTENT - OVERHEAD

Date:

TO: Kosrae Utilities Authority
PO Box KUA
Tofol, Kosrae State, FM 96944

SUBJECT: Letter of Intent - Request for Overhead Electrical Distribution

Municipality _____, Section _____, Parcel No. _____, Cadastral Plat

Dear _____ :

This letter is to request that the following development, _____, located as above, be connected to the electrical distribution system supplied by the KUA. I understand and agree to be bound by the following conditions and requirements for service:

1. All property corners along road rights-of-way shall be installed and appropriately marked at no cost to the KUA in accordance with approved plans and all other aspects of the KUA Policies, Standards and Specifications for Electric Service to Residential and Commercial Developments.
2. No liability whatsoever for injuries or damages resulting from system installation shall be transferred to the KUA.
3. All necessary easements shall be executed at no cost to the KUA and provided to the KUA for recording in the Public Records prior to the installation of KUA facilities.
4. The KUA is given all rights necessary to enter the property at any time for the purpose of inspection of construction, materials or other reasons necessary to insure a reliable installation.
5. At least ten (10) days prior to the need for any electric service, the developer shall contact the KUA for a final development closeout review.
6. Should any of the above conditions not be fulfilled, electric service may be withheld by the KUA.
7. I have read the KUA Policies, Standards and Specifications for Electric Service to Residential and Commercial Developments and understand my responsibilities in order to receive overhead electrical service from the KUA.

BY: _____

Witness

TITLE _____

Witness

NAME OF COMPANY _____

ADDRESS _____

16.5

LETTER OF INTENT - UNDERGROUND

Date:

TO: Kosrae Utilities Authority
PO Box KUA
Tofol, Kosrae State, FM 96944

SUBJECT: Letter of Intent - Request for Underground Residential Distribution Facilities

Municipality _____, Section _____, Parcel No. _____, Cadastral Plat

Dear _____ :

This letter is to request that the following development, located as above, be connected to the electric distribution system supplied by the KUA. I understand and agree to be bound by the following conditions and requirements for service:

1. Provide the KUA with the following information so the KUA can begin its engineering design of the underground electric distribution facilities:
 - a) Paving, grading and drainage plans, satisfactory to the KUA, showing all surface and sub-surface drainage,
 - b) A construction schedule and an estimate of the date electric service will be required, and
 - c) Copies of final construction plans as well as other construction drawings (plot, site, water, wastewater, storm water, electrical, etc.)
2. Provide all trenching, backfilling and compaction and install a complete electric underground conduit system at no cost to the KUA in accordance with the approved plans, specifications and all other aspects of the KUA Policies, Standards and Specifications for Electric Service to Residential and Commercial Developments.
3. No liability whatsoever for injuries or damages resulting from system installation shall be transferred to the KUA.
4. All necessary easements, including legal descriptions and survey work to produce such easements, and mortgage subordinations required by the KUA for the installation and maintenance of its electric distribution facilities shall be executed or obtained, at no cost to the KUA, and provided to the KUA for recording in the Public Records prior to the installation of KUA facilities. The KUA may require mortgage subordinations when the Developer's property, on which the KUA will install its facilities, is mortgaged and (1) there are no provisions in the mortgage that the lien of the mortgage will be subordinate to utility easements; (2) The KUA's easement has not been recorded prior to the recording of the mortgage; (3) the KUA's facilities are or will be used to serve other parcels of property; or (4) other circumstances exist which the KUA determines would make such a subordination necessary.
 - a) Furnished to the KUA, a copy of the deed or other suitable document which contains a full legal description and exact name of the legal owner to be used when an easement is prepared.
 - b) Furnish to the KUA, drawings, satisfactory to the KUA, showing the location of existing and proposed structures on the construction site.
 - c) Should for any reason, except for the sole error of the KUA, the KUA's facilities not be constructed within the

easement, the KUA shall require the Developer to grant new easements and obtain any necessary mortgage subordinations to cover the KUA's installed facilities. The KUA will subsequently release the existing

existing easements. Mortgage subordinations will be necessary when 1) the property on which the KUA will install its facilities is mortgaged; 2) there are no provisions in the mortgage for subordination of the lien of the mortgage to utility easements; or 3) the KUA's facilities are or will be used to serve other parcels of property.

5. Upon final acceptance by the KUA, absolute title of all conduits, pullboxes, manholes and other appurtenances shall be vested in, and be the sole property of, the KUA through the execution of a *Certificate of Dedication and Warranty*.
6. The KUA is given all rights necessary to enter the property at any time for the purpose of inspection of the construction, materials or other reasons necessary to insure a reliable installation.
7. A one week notification in writing shall be given prior to the start of construction.
8. "As Built" drawings shall be submitted within ten (10) days after completion of the conduit system.
9. A full 1-year warranty is given against defects in materials and workmanship. Warranty is to begin upon acceptance by the KUA and to include all portions of the electric conduit system as installed.
10. The developer acknowledges that it and other parties will be performing construction work on the property and that there is a possibility that damage may occur to the underground electric facilities, the secondary pedestals and transformers which are above the surface of the ground. The developer hereby assumes the responsibility for protection of the facilities installed by or for the KUA from damage by its employees, contractors and subcontractors working within the Development. It is further understood and agreed that subsequent relocation or repair of the electric distribution system, once installed, will be paid by the Developer if said relocation or repair is a result of a change in the grading by the Developer or any of the Developer's contractors or subcontractors from the time the underground facilities were installed. The liability of the Developer shall be to reimburse the KUA for actual costs including labor, equipment, materials and customary overhead utilized in repairing such damage to the KUA's facilities.
11. Prior to the commencement of work, the Developer/Contractor shall submit proof of insurance meeting the requirements of the KUA for any work to be performed on portions of the project where the KUA is the signer or co-signer to the utility use permit. The KUA shall also be listed as additional insured on the contractor's policy.
12. At least ten (10) days prior to the need for any electric service, the developer shall contact the KUA for a final development closeout review.
13. Should any of the above conditions not be fulfilled, electric service may be withheld by the KUA.
14. I have read the KUA, Policies, Standards and Specifications for Electric Service to Residential and Commercial Developments and understand my responsibilities in order to receive underground electric service from the KUA.

BY: _____

TITLE

NAME OF COMPANY

ADDRESS

16.6

ELECTRICAL CONDUIT SYSTEM INSPECTION AND FINAL REVIEW

Date:

To:

RE: Electrical Conduit System Inspection and File Review

Dear _____ :

I have completed a final review of our records and an inspection of the electrical conduit system your contractor has installed in _____. Before the KUA can proceed with the installation of conductor and equipment the following items shall be submitted and/or corrected:

- _____ Letter of Intent not received.
- _____ Agreement to Provide Easement not received.
- _____ Final grade not completed.
- _____ Conduit system too shallow.
- _____ Conduit system not installed in accordance with specifications.
- _____ Conduit system installed at incorrect location.
- _____ Conduit system has obstruction or broken conduit.
- _____ Conduit system property value not received.
- _____ "As-Built" Construction drawing not received.
- _____ "As-Built" Survey description or "Exhibit A" drawing not received.
- _____ String not blown into conduits.
- _____ Copy of plat (in form acceptable to the KUA) showing easements not received.
- _____ Certificate of Dedication and Warranty not received.
- _____ Other:

If you have any questions or if I may be of additional assistance, please call me at (691) 370-3799.

Sincerely,

CERTIFICATE OF DEDICATION AND WARRANTY

KNOW ALL MEN BY THESE PRESENTS, that

(Name of Individual or Corporation)

BEING THE OWNER OF certain properties in:

Municipality _____, Section _____, Parcel No. _____, Cadastral Plat

known as

Name of Subdivision, Mobile Home Park, description or Parcel, etc.)

does hereby dedicate in fee simple forever the herein described electric conduit system facilities on said properties to the Kosrae Utilities Authority (herinafter KUA).

This warranty does warrant that all electric facilities installed have been verified by the owner or designated representative to be installed within the electric easements required by the KUA.

This dedication includes all of the conduit, pull boxes, manholes and appurtenances installed for and connected to the KUA electric distribution system. Said facilities are dedicated to the perpetual use of the KUA and may be maintained, modified, removed or replaced by the KUA, its successors and assigns.

All portions of the electric conduit system are hereby guaranteed against material defects and/or improper workmanship for a period of one year from the date of acceptance by the KUA.

IN WITNESS WHEREOF, the undersigned caused these presents to be signed and attested on this

day of _____, 19 ____.

Signed, sealed and delivered in the presence of:

SEAL

Witness

BY: _____

TITLE
NAME OF COMPANY
ADDRESS

Witness

BY: _____

STATE OF

BEFORE ME, the undersigned authority, personally appeared _____ and _____ to me known and known to me to be the person(s) who executed the foregoing instrument and they each and severally acknowledged to and before me that they executed the same freely and voluntarily for the purposes therein expressed.

Witness my hand and official seal at _____ on this, the ____ day of _____, 19 ____.

Notary Public

My Commission Expires:

ACCEPTED BY: _____
KUA Representative

Title

Date

17. SPECIFICATIONS

The attached specifications are the most commonly used in installing overhead and underground electric facilities and are included as an integral part of this policy manual.

If you have any questions concerning the attached specifications, please contact the KUA.