SERVICE SPECIFICATIONS / INSPECTION REPORTS

EQUIPMENT MAINTENANCE

1. GENERAL:
   a. The services shall consist of performing required operational and preventive maintenance of the Sewage Lift/Pump Station located at Kauhale Ohana, 41-1260 Kalanianakele Highway, Waimanalo, Oahu.

   b. Such services are to be conducted in accordance with the best practices of the industry governing the operation and maintenance of sewage lift station and in accordance with manufacturer's instructional manuals, so as to assure the final effluent is within the State Department of Health and EPA requirements.

   c. Such services will include furnishing and paying for waste sludge removal, labor, materials, minor parts, and tools necessary to properly operate and maintain the sewage lift station including if needed scheduling a sewage pump truck during maintenance periods or any other equipment. Minor parts shall mean those parts costing less than $50.00 and major parts shall mean parts costing individually $50.00 or more as shown on the manufacturer's price list.

   d. Only new standard parts manufactured by the maker of each unit or parts of equal quality shall be used. The CONTRACTOR will be furnished or compensated by the Hawaii Public Housing Authority (HPHA) for any major parts or equipment replacement. The CONTRACTOR must maintain a running log checklist for each sewage pump, recording the date of each operational and maintenance service work performed and who performed the work. The log book shall be kept in the Officer-In-Charge's office.

2. DESCRIPTION OF SERVICES:

2.1 GENERAL:
   a. The work shall include the inspection and testing of sewage lift station. The inspection level for each visit is described herein.

   b. At the end of the contract, furnish two (2) bound copies of warranties of any new parts and typewritten inspection reports containing all test results, technician's comments, and other pertinent information. Manufacturer, model number and serial number for each sewage pump shall identify equipment in the report. All test results and reports shall be sent to the HPHA no later than ten days after completion of service work. A copy of the technicians' field report shall be delivered to the HPHA upon completion of each service visit. The HPHA shall be furnished an electronic copy of the test reports in PDF format. Other formats maybe accepted with prior approval.

2.2 INSPECTION REPORTS:
   a. For each sewage pump, a typewritten recorded log report containing all test results, technician's comments, and other pertinent information shall be completed. Equipment shall be identified in the report by manufacturer, model number and serial number. Applicable reports shall include "as-found" and "as- left" conditions. A copy of the technicians' field report shall be delivered to the HPHA within 10 days after completion of each service visit. Upon completion of each quarterly service, the completed reports for all pumps in section 3.01, shall be compiled and bound.
together into a single document. The HPHA shall be furnished with two identical copies of this compiled report along with one electronic copy. An electronic copy shall be submitted on a CD in Microsoft Word format. The two (2) bound inspection reports and one electronic report shall be submitted to the HPHA no later than ten days after completion of last inspection.

b. Inspection report for each pump shall be submitted with the invoices. Payments shall not be processed until the required records of each service visit are received by the HPHA’s project Engineer.

c. Submit labor rates for repairs outside of the specific scope of work of this Contract the awarded vendor will be required to honor these rates. Repairs may be performed with the written authorization of the HPHA’s project engineer. Such repairs will be billed at the bid labor rate with the material price not to exceed the vendor’s actual cost plus 10%. The HPHA reserves the right to request documentation of the vendor’s actual cost. Payment for all approved repair work will be paid through purchase orders.

2.3 SCHEDULING:

a. Work shall be scheduled between 8.00 a.m. and 4:00 p.m. Monday through Friday. All work shall be scheduled at the HPHA’s convenience and in cooperation with the HPHA’s project engineer and area manager. Response to each emergency condition shall not exceed more than two (2) hours from the time it was called in by the HPHA. The CONTRACTOR shall provide priority to the HPHA on all the scheduled repairs.

b. The service work shall be completed within 30 days prior to the end of the quarterly service.

2.4 SAFETY:

a. The CONTRACTOR in cooperation with the HPHA personnel shall develop and review a work plan in accordance with OSHA regulations for each day’s work.

b. The CONTRACTOR shall take all necessary precautions to protect the public and tenants from injury resulting from its work.

c. The CONTRACTOR shall take whatever steps may be necessary to safeguard its work, the property of the HPHA as well as other individuals in the vicinity of the work area during the execution of this Contract. It shall be responsible for and make good on any and all damages and for losses to work or property caused by it or its employee’s negligence.

2.5 REFERENCE STANDARDS:

a. The work shall comply with the manufacturer’s recommendations, these specifications, and the applicable National Electrical Manufacturers Association (NEMA), American National Standards Institute (ANSI), American Society of Mechanical Engineers (ASME) and American Society for Testing and Material (ASTM) standards. Work shall be carried out in compliance with applicable safety regulations.
b. All inspections shall conform to:

**NFPA 70B**: Recommended Practice for Electrical Equipment Maintenance 1999 Edition, Sections 6-8.4, 14 and 22-2.5

**NFPA 70 E**: Standard for Electrical Safety Requirements for Employee Workplaces, 2000 Edition

2.6 **INVOICE REQUIREMENTS:**

Service report shall be submitted attached to the invoice after each service.

**NOTE:** Payments shall not be processed until the required records of each service visit are received by the HPHA's Project Engineer.

3. **SPECIFICATION FOR SERVICES OF SEWAGE LIFT/PUMP SYSTEM:**

3.1 **GENERAL:**

a. The work described under any of the following sections shall not commence for any particular item of equipment until the testing and inspection plan has been discussed and with the HPHA's project engineer.

b. Variations from the following general procedures will be allowed if all tests, adjustments, cleaning and lubrication are accomplished.

c. This section refers to manufacturer's published instruction manuals for specific requirements for each item of equipment. The items included in this section are intended to indicate the required level of inspection, maintenance, and testing rather than specific procedures.

d. For all inspection, maintenance, and testing tasks, written notation(s) of condition found, condition left, and any action taken.

e. All replacement parts shall be Original Equipment Manufacturer (OEM) parts with the exception of certain belts, filters, fittings, and hoses, as long as a quality name brand part is used. Variations may be allowed with authorization of the HPHA's project engineer.

3.2 **SPECIFICATION FOR SERVICES OF SEWAGE LIFT STATIONS:**

The Contractor shall submit a schedule of service for the sewage lift stations and shall maintain a log or record keeping system to document all gauge readings, problem, repairs, and maintenance performed on the equipment.

3.3 **GENERAL SERVICES FOR THE COMPLETE SYSTEM**

The general operational and maintenance service shall be performed during each visit and shall include, but is not limited to the following:

a. **QUARTERLY SERVICE:**

The general operational and maintenance service shall be performed during each visit and shall include, but not be limited to, the following:
1. Check both pumps and motors in accordance with the manufacturer's instructions and recommendations. Inspect pump rotating elements and test condition of pumps for abnormal operation.

2. Inspect check valves for wear and operation.

3. Check control panel to ensure the proper working condition of safety switches and all electrical switches and wiring system.

4. Check grease and debris accumulation in the wet well, and advise the HPHA when the well needs to be cleaned.

5. Inspect and clean COTG (cleanout to grade) upstream of the pump assembly.

6. Keep wet well clear of debris and grease accumulation.

7. General housekeeping services such as dusting, wiping and washing the premises.

8. Test wet well high-level alarm.

b. **ANNUAL SERVICE:**
   The general operational and maintenance service shall be performed during each visit and shall include, but not be limited to, the following:

   1. Perform all quarterly service maintenance procedure first.

   2. Remove and lift out pump. Clean out any build up of material in the volute and behind the impeller.

   3. Inspect cutters for any damage. Adjust or replace if necessary.

   4. Operate and lubricate all valves, repack as required.

   5. Test, inspect, and clean lubricate all major electrical equipment including motors, starters, float switches, contactors, circuit breakers, relays and magnetic starters in accordance with manufacturer's instructions.

   6. Inspect pumps, guide rails, associated piping and float and any accessories for broken fittings, hoses or wires and guards. Repair as necessary.

   7. Control Panel - Visually inspect; check for loose, broken or damaged wiring or components.

c. **PUMPING SERVICE:**
   1. At the end of the Annual Service, pump down, flush and inspect wet well. Hose down wet well walls; remove grit, grease accumulations and debris (pumping services).
3.4 **EMERGENCY SERVICES:**
The Contractor shall provide 24-hour service capabilities to handle emergency service, repair or replacement. Emergency services shall be paid for by HPHA to the Contractor on an actual time and material basis through purchase order. The Contractor shall respond and be on-site within six (6) hours of notification by the HPHA personnel of an emergency.

3.5 **WORKMANSHIP:**
All operational and maintenance services including emergency services shall be done in a first-class workmanlike manner by mechanics skilled in the trade and under proper supervision of the Contractor.

3.6 **PROTECTION:**
The Contractor shall take all necessary precautions to protect the public and tenants from injury resulting from its work.

The Contractor shall take whatever steps may be necessary to safeguard its work and also the property of the HPHA as well as other individuals in the vicinity of its work area during the execution of this contract. The Contractor shall be responsible for and make good on any and all damages and for losses to work or property caused by it or its employee's negligence.

3.7 **CLEAN UP:**
At completion of each maintenance service or emergency service, the Contractor shall clean up and remove all rubbish, grease and debris from the premises resulting from this work and shall keep the entire area clean and neat.

END OF SECTION